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A Quarterly Review of Archaeology



Edited by O. G. S. Crawford, F.S.A.

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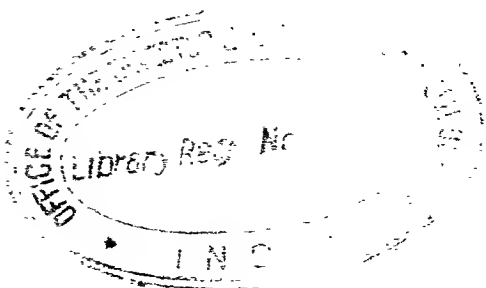
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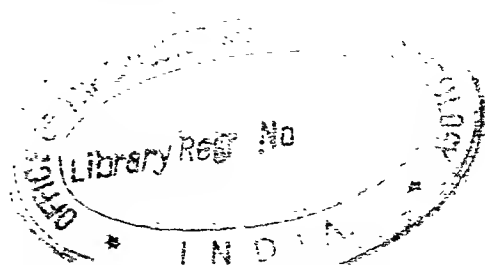
Editorial Notes

A READER of *ANTIQUITY* suggested recently that we should start a 'comic section'; and a reference to this in our last number has prompted an American reader to send a friendly protest. We are not seriously thinking of having a comic section, but it is certainly not for lack of material, and in proof of this we propose to devote these pages to a few instances which have all occurred since our last number was published. We do so in the hope of giving our readers and the general public some idea of difficulties encountered by the professional archaeologist and others concerned with the advancement and diffusion of real knowledge. These difficulties are not minimized by the laws of libel which operate in favour of the crank, the charlatan and the common swindler.



The best story of the season unquestionably comes from The Wash, where King John lost his luggage; but it is a story that is still but half told, and the really funny part comes at the end. We shall not therefore spoil it by premature publicity, especially as some of our readers may already have read an excellent and well-informed summary in *John Bull* (vol. LV, 13 Jan., 1934, 8-9). When the time comes we promise to give as sober and restrained an account as possible.

I



ANTIQUITY

From the sands of The Wash to the sands of the Libyan desert and 'the unexplored Upper Nile and Abyssinia'. Here or hereabouts 'one of the largest scientific expeditions of recent years led by Count Byron de Prorok' hopes to find 'the body of Alexander the Great and King Solomon's mines'. Later on such minor items as the 'Royal Tombs in the Mountain of the Dead', the 'lost oasis of Zerzera' (*sic*), the 'famous emerald mines of Cleopatra' will be roped in. 'Lost African civilization will also be sought, linking up the theory that the North Africans and the Mayans in America both originated from the lost continent of Atlantis'. But it is always as well to have a second string to even the best-linked theory, and further on we are told that 'Prorok expects to find another Atlantean migration in this research' in Abyssinia.



The account from which we quote, published in *The Egyptian Gazette* ('about 14 December 1933'), concludes by stating that 'the expedition is being undertaken under the auspices of the International Anthropological Institutes of the British, French, Italian, Egyptian and Ethiopian Governments'; and that 'in addition to Count Byron de Prorok, F.R.G.S., the party includes' certain persons named. The expression 'International Anthropological Institutes' has no meaning; but if it is meant to include (as obviously it is) the Royal Anthropological Institute of Great Britain and Ireland, we are informed that the statement is incorrect. We also understand that Count Byron de Prorok is not a fellow of the Royal Geographical Society.



Armenia supplies the next instalment. In the *Sphere*, 16 December 1933, were published four illustrations 'taken by Mr Carveth Wells, the American traveller'. We are further informed that 'illustrations of this type have been banned since the advent of Stalin (!), and it was only with the greatest difficulty that Mr Wells was able to obtain them'. The Editor of the *Sphere* evidently does not read ANTIQUITY as carefully as he should. If he did he would have known that one of his pictures—or rather another picture of the same objects, a rather better one!—had already been published in ANTIQUITY (1932, VI, 463–6, PLATE II). This and the others were taken by the Editor on 19 June 1932, without the need of asking special permission and without experiencing the

EDITORIAL NOTES

slightest difficulty. Further, the objects shown in these two pictures are *not* 'Hittite carvings found by Mr Carveth Wells during his visit to Armenia', and shown by a cuneiform inscription to 'belong to a period between the twelfth and seventeenth centuries, B.C.'. Nothing of the kind; they are the carved capitals of an early Christian church, whose ruins are seen in the background; and they were not found by Mr Wells but by archaeologists of the Armenian Government by whom the site was excavated and subsequently scheduled as an ancient monument.



Another illustration on the same page is of the 'fourth century pulpit' in the cathedral of Mtzhet—which is not in Armenia but in Georgia, of which country it is the old capital. In this cathedral the Editor of *ANTIQUITY* also took a photograph—of a fresco on the wall; though unfortunately it was a failure. The custodian, a priest, raised no objection whatever to this proceeding, when, as courtesy demanded, his permission was asked.



Next we are shown a photograph—said to be the first taken—of 'an Armenian monk holding the spear-head with which one of Pilate's soldiers is believed to have pierced the side of Christ at the Crucifixion. Its authenticity has never been definitely established'. This so-called spear-head is an obvious fake—which helps to explain the previous reluctance of its guardians to have it photographed.



Finally we are introduced to 'members of the Kheysur tribe' who 'are believed to be descendants of the Crusaders (and) to speak the English language of the time of Richard Coeur de Lion'. What rubbish! Of the existence of these people, armed with shields and swords and chain mail, there can be no question (though they belong to the Caucasus, not to Armenia). But the rest of the statement is quite inaccurate and misleading. As if any language would remain unchanged for over 700 years, apart from the fact that the alleged Crusader connexion is baseless and in the highest degree improbable.

ANTIQUITY

We close this merry hour listening in to Mr B. 'discussing an archaeological matter with my good friend Mr A.', in the columns of the *Hertford Mercury*. What is it about? Why, the deluded Mr A. derives Ermine Street from 'the word "ermen" (which) would denote "side" or "arm" road in Egyptian'. Both Mr A. and Mr B. agree to 'recognize an Egyptian colonization of Britain'; but in this instance Mr B. prefers to find his derivatives nearer home, in an Anglo-Saxon word 'herman',* meaning, so far as we understand Mr B. (which is not far), 'military road'.

Even comedy has its comic relief; and with this last episode we take a fond farewell of all our saneness. Good-night, everybody, good-night!

The SUBSCRIPTION to ANTIQUITY for 1934 is now DUE. We would remind our Subscribers of the form and envelope inserted in the December number for the purpose of remitting payments. *An early response will be much appreciated as this will save avoidable trouble in having to send out direct reminders.*

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*Actually the word hereman (not herman) does occur once in the whole of Anglo-Saxon literature, meaning not a 'military road' but a soldier; and the real origin of the name Ermine Street is clearly and authoritatively stated by the Editors of the English Place-Name Society ('What is now the name of the whole road from London to Lincoln was originally given to that stretch of it which ran through the land settled by the *Earningas*, i.e., by *Earn* and his people'. *Beds. & Hunts.*, 1926, p. 3).

History in the Open Air

by H. J. RANDALL

THE face of the country is the most important historical document that we possess. Upon the map of England—‘that marvellous palimpsest’—is written much of English history: written in letters of earth and stone, of bank and ditch, of foliage and crop. As is the case with every map, the writing is not such as he that runs may read. It needs patience to discover, knowledge to decipher, insight, sometimes amounting to genius, to interpret. But the writing is there, all else awaits the competence of the reader.

The idea has grown slowly, and historians have assimilated it more slowly still. To many it is entirely repugnant: to others it is completely alien. There are historians whom it would be inequitable to disparage and dangerous to neglect, to whom documents are documents and men are just men, affected neither by ancestry nor environment. To these the face of the country is meaningless, and the influence of physical conditions a fond thing vainly imagined. Some go so far as to recognize that the men of the forest are somehow different from the men of the desert, but beyond distinctions of this kind their insight does not penetrate.

We may call such a view of things ‘eighteenth century’, but it is by no means confined to that age of dignity and generalization. Yet that was the century that saw the beginnings of a healthy reaction. It came from those antiquaries that most historians neglected, and many affected to despise. Stukeley, busy, fussy and credulous, was yet ever ready with his pencil, never neglected his maps, and was filled with the determination to see things before describing them. General Roy added to his lifelong labours in the cause of the mapping of England an equally intense interest in archaeology, to which his *Military Antiquities of the Romans in North Britain* bears eloquent tribute. He bequeathed to the Ordnance Survey the sound tradition that no map of the country should omit its antiquities.

But a greater than Stukeley carried the method as far as it could be carried in that age. Richard Colt Hoare was essentially an antiquary

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of the open-air school, without in the least neglecting the records and the documents. After tours on the continent more than grand, resulting in hundreds of drawings and thousands of notes, he followed Giraldus Cambrensis through Wales, and finally produced the greatest of all the old county histories, *Ancient and Modern Wiltshire*. All the relics of the past civilizations, barrows, stone circles, earthworks, roads, pavements, buildings, are there described in their proper situations; and with the help of William Cunnington the spade was used as an instrument of archaeological discovery.* The last part of the incomplete *Modern Wiltshire* appeared in 1844—six years after Hoare's death. In 1849, appropriately enough at the Salisbury meeting of the Archaeological Institute, a paper was read on 'The Early English Settlements in South Britain'. It was to have a number of successors, and they were to have a great influence upon the line of study that we are tracing. With the rise of the Oxford school of historians to a position of paramount influence, in the 'seventies of the last century, the study of history in the open air began to come into its own. In those spacious days, when

'ladling butter from alternate tubs,

Stubbs buttered Freeman, Freeman buttered Stubbs',
Freeman, Stubbs and Green combined to butter Doctor Edwin Guest, Master of Gonville and Caius College in the University of Cambridge, the author of the above mentioned papers. Except for the occasional passage of a vacuum cleaner, thick layers of dust now cover Guest's *Origines Celticae (a fragment) and other contributions to the History of Britain*. It is the inevitable fate of all pioneers in scholarship and science. They show the new method, but others assimilate it and carry it to perfection. 'It was the vigorous forward man who struck out the rough notion, though it was the wise and meditative man who improved upon it and elaborated it, and whom posterity reads'. This is not to say that Guest's results have stood the test of time. Since Dr Cyril Fox has shown that all our dykes belong to the Dark Ages, we can no longer call the Wansdyke a 'Belgic Ditch', nor do we agree that the Belgae were the probable builders of Stonehenge. But these matters are of small account. The important fact is that Guest was right in his method. He recognized that the dykes were boundary ditches, though he may have been mistaken in their makers and their

* A delicious sentence must be rescued from the life of Hoare in D.N.B.: 'Hoare, who was a fellow of the Royal Society and of the Society of Antiquaries, suffered greatly from rheumatic gout in the latter part of his life, and was deaf for some years'. Is this meant as a consequence, or merely a coincidence?

HISTORY IN THE OPEN AIR

time. He realized that the invasions and settlements of England were determined by its physical features, and that the historical story must be fitted into the physical setting. He used all the methods of antiquarian research except one, and he ever insisted upon exploring the country himself, sometimes 'with half the village in company'. His works are forgotten, but his influence will survive.

In fact Guest taught the Oxford school, as they fully and generously acknowledged. He taught Freeman to explore the countryside of Somerset, and to write the *Historical Geography of Europe*. He taught Green to 'largely avail himself' of 'some resources which have been hitherto unduly neglected'.

'Archaeological researches on the sites of villas and towns, or along the line of road or dyke, often furnish us with evidence even more trustworthy than that of written chronicle; while the ground itself, where we can read the information it affords, is, whether in the account of the Conquest, or in that of the settlement of Britain, the fullest and the most certain of documents. Physical geography has still its part to play in the written record of that human history to which it gives so much of its shape and form; and in the present work I have striven, however imperfectly, to avail myself of its aid'.¹

The geographical method which Green applied to the interpretation of the English conquest was directly due to the influence of Guest, and the plentiful maps in *The Making of England* are an expansion of his principles. But the use of one instrument had not been perfected in his time. Excavations of archaeological sites had certainly been carried out, but they were for the most part unscientific in character. The purpose of the excavators was 'finds', and the record of the surrounding details that gave the finds their meaning was neglected, or rather its importance was not appreciated. A notable precursor of the better method was William Cunnington, working with Colt Hoare. Two men were primarily responsible for making the spade the one essential implement of scientific archaeology. One was Canon Greenwell, who in the intervals of inventing and using one of the most famous of artificial trout flies, explored barrows without number in the Northern counties, and carefully recorded the results of his excavations. The other was Pitt-Rivers.

Augustus Henry Pitt-Rivers (né Lane Fox), 1827-1900, 'raised English archaeology to a new and higher level'. In fact he founded the modern method of scientific excavation. The four volumes of

¹ *The Making of England*, 1881, preface, vii.

ANTIQUITY

Excavations in Cranborne Chase are not merely a record of exploration, they are the standard exposition of a method that every qualified antiquary has followed ever since. The frequent references to them in archaeological papers show the value of the details they record, but the unacknowledged influence of the digging, the recording, and the interpretation are felt in every archaeological excavation and every text-book of method.

The next stage was the geographical,—to set out the records on a map and look at them. There history and archaeology really met, and there history was taken out into the open air.

In this connexion it is sufficient to mention the names of Mr O. G. S. Crawford and Dr Cyril Fox. The pioneer of the method was Mr Crawford,* and the paper that started the whole movement on its way was the 'Distribution of Early Bronze Age Settlements in Britain' read before the Royal Geographical Society, and published in the *Geographical Journal* in 1912.² All the canons of the geographical study of archaeology are implicit in that paper. For the first time archaeological finds were plotted on distribution-maps and inferences drawn from the results. The objects chosen were the flat celts, the beakers, and the gold circlets or lunulae. The invasion of the Beaker people is now such a fundamental fact in the prehistory of Britain that it is difficult to realize that they were only identified as a separate people early in the present century, and that in Mr Crawford's paper, only just over twenty years ago, the areas of their settlements were shown for the first time. Mr Crawford's thesis has been so thoroughly assimilated that its originality is hard to realize. In the same year (1912) Lord Abercromby's great work on the Bronze Age Pottery was published and in it the same method of mapping the finds was practised.

To find out how far we have moved since then it is only necessary to refer to the first edition of the British Museum Bronze Age Guide.

The reason for this late appreciation of the importance of geographical control was the very matter that we are discussing—history would not be taken out into the open air. In a note which did not appear in the published paper Mr Crawford made some remarks so apposite that we take leave to quote them.

'The distributional aspect of the subject (of prehistoric archaeology) has been almost as completely ignored as the evolutionary. This is partly because most prehistorians have been essentially townsmen and so out of touch with nature; they are the last people to understand the conditions of prehistoric life.

* But see note opposite.—ED.

² *Geographical Journal*, 1912, XL, 184, 304.

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This is why some of the articles in the leading archaeological journals of the last century are so amazingly deficient in the commonsense of the country dweller ; and why the proceedings of small country field clubs are often far ahead of them in showing a true appreciation of prehistoric problems. The townsman, and his brother the collector, rarely get behind the things themselves to the people who made them '.

NOTE by the EDITOR

[No one is ever the first to do anything, and with regard to Mr Randall's comment on the beginning of distribution-maps (p. 8) it is only right that I should add a note on the earlier workers who influenced me in this research.]

The principal one was the Hon. John Abercromby (later Lord Abercromby), whose work on beakers—a name which he invented—was first made public in a paper read before the British Association in 1902, and again before the Anthropological Institute in London. It was published in the Institute's Journal, 1903, XXXII (N.S. V) 375-94, under the title 'The Oldest Bronze Age Ceramic type in Britain'. This was followed by a paper on 'A proposed Chronological arrangement of the Drinking-cup or Beaker class of fictilia in Britain', published in *Proc. Soc. Ant. Scot.* 1904, XXXVII, 323-410, with a distribution-map. In the same year appeared in Germany the first of those articles on the distribution of bronze implements in Germany by Lissauer, who was the spiritual father of the Bronze Implement Committee of the British Association. (*Zeitschrift für Ethnologie*, 1904-7, vols. 36-9). These articles were accompanied by maps on a larger scale (1 : 2,500,000) than anything previously employed for this purpose. They also showed high ground by a special colour. Finally in 1906 was published Schliz's article on the connexion between the loess deposits of Central Europe and the neolithic population (*Zeit. für Ethn.* 1906, XXXVIII, 335 ff, map). My object was to combine Schliz's geographical method of approach with Abercromby's facts and see what came of it. In all this I had the advantage of endless talks with Mr Harold Peake, who first suggested to me that I should work on these lines, and write the paper referred to by Mr Randall. Mr Peake is thus responsible (in a general way) for the initiation of work which might never have been undertaken without his encouragement. Other debts have been already acknowledged elsewhere ; but I must not conclude this historical explanation without mentioning the pioneer of 'vegetation-restoration', Dr Williams-Freeman. His book *Field Archaeology as illustrated by Hampshire*, and its map, did not actually appear till 1915 ; but during the preceding five years we

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had discussed the desirability of restoring primitive vegetation upon the basis of soil-distribution. The influence of Professor Myres upon all human geographers of the pre-war generation was widely felt and has had far-reaching results. The Ordnance Survey Maps of Roman Britain and of Neolithic Wessex are the latest examples of the geographical treatment of archaeological materials ; and there are others in the making.—O.G.S.C.]

Mr Crawford has always followed the method that he originated. Quite recently he has endeavoured to discover the historical meaning of the Grim's Ditches of the Chilterns by methods archaeological, and to restore the somewhat shaken authority of earlier entries in the Anglo-Saxon Chronicle by showing that they are consistent with the facts of contemporary topography. (Mr E. T. Leeds on the other hand, arguing against the authenticity of the same entries and in favour of a West Saxon invasion by the route of the Icknield Way, uses precisely the same method).³ The demonstration of the existence and destruction of the Celtic System of agriculture in *Air Survey and Archaeology* (1924 ; 2nd edition, 1928), is a matter of first-rate importance in the historical interpretation of the English conquest. Above all he has proved that in air-survey the archaeologist has been provided with a new weapon of almost limitless possibilities for the recovery of lost historical facts from the face of the country. The restoration of the Celtic fields, the recovery of the Stonehenge avenue, the finding of Woodhenge, the revelation of the street plan of Venta Icenorum are merely forcible examples of a method that will recreate whole chapters of our history, and perhaps more than double the number of our known archaeological sites. Maitland spoke more truly than he could possibly have imagined when he called the map of England ' that marvellous palimpsest '.

Dr Fox's method is essentially the same. In his *Archaeology of the Cambridge Region* (1923), with its series of maps, all upon a uniform scale and all showing the physical features with the sites of the different ages plotted upon them, he exemplifies the method in meticulous detail applied to a selected area. In the *Personality of Britain* (1932), he has extended it to cover the whole country, with an insight and a wealth of illustration that should make a pamphlet of less than 100 pages a

³ ' The West Saxon Invasion and the Icknield Way '. *History*, July 1925, x, 97 ; ' The Early Saxon Penetration of the Upper Thames Area '. *Antiquaries Journal*, July 1933, XIII, 229.

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landmark in the progress of historical study. The antiquary, the geographer, and the historian will all neglect it at their peril, for in it their several contributions to knowledge meet together and present the complex picture of the personality of Britain.⁴

'Man is a devil to fight'. However distressing the fact may be to a pacifist, history's first excursion into the open air is to visit the battlefields. The first historian to use maps and to study ground was the military historian, and a history innocent of all other maps will usually include some kind of plan of a battle. Geography was not a very strong point with Macaulay, but with his keen eye for detail he saw the necessity of visiting the sites of all his battles, and every competent historian since, however unmilitary his outlook, has also realized this. The same is true of local history. Every place of battle cherishes the memory of that one past day when it ceased to be local and became part of the universal, when something happened *there* which wrote the name of a sleepy hamlet upon the pages of general history. No protest against the erection of electric pylons was more spirited than that which forbade their crossing the Edge of Flodden.

Even a minor engagement is a joy to a topographical writer. On 29 June 1644, there was a small affair at Cropredy Bridge on the Cherwell between the Parliamentarians under Waller and the King. It was indecisive and can hardly rank as a battle, but the 'Highways and Byways' volume on *Oxford and the Cotswolds* devotes four pages to it. For Cropredy Bridge that day was the day of days. Then and then only did it emerge from its eternal quiet and become part of English history, and for ever the memory of that day is the centre of the story of Cropredy Bridge.

In our land there is one such site that ranks above all others. It matters not whether we adopt the traditional name of Hastings, where the battle was not fought, or Freeman's quite justifiable suggestion of Senlac; in the Middle Ages it was the Place of Battle. It is quite possible that the precise site had no distinctive name before 14 October 1066. But in its emphasis the medieval tradition is right. In any list of the decisive battles of the world, Hastings will always be one. The only other battle-site on English soil that can approach it in importance is Ethandune, and that has no commemorative abbey.

Upon the value, as distinct from the decisive importance of

⁴ This little sketch is selective, not exhaustive. Any complete account of the matter would mention the names, among others, of Dr J. P. Williams-Freeman, Professor H. J. Fleure, Mr Harold Peake, and Dr R. E. Mortimer Wheeler.

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Hastings, historians will always disagree. To many it marks the re-entry of England into the main stream of European civilization, characterized by the castle, the abbey, and the full tide of feudalism. To others the benefits are not so apparent. They do not consider it self-evident that the brutality of Odo of Bayeux was better than the brutality of Stigand ; or that the anarchy of Stephen was a superior anarchy to that of Ethelred the Redeless ; or that the obstinacy of Thomas of Canterbury was a more civilized obstinacy than the obstinacy of Dunstan of Glastonbury ; or that the barbaric coinage of Henry I was more beautiful than the silver penny of the Confessor. But there is one episode of Hastings that no Englishman can ever forget—the last stand of Harold's bodyguard. When the day was lost and the king was dead, those splendid housecarls yielded not a yard. There they stood and there they fell to the last man in the lengthening shadows of that October afternoon, ringed round the body of their fallen leader, ' with all their wounds in front ', striking their last blows for England at England's own Thermopylae.

It is evident that upon the disposition of a battle and the plan of a campaign the influence of topography is paramount. The great achievement of the modern school of geographical antiquaries and historians has been to demonstrate that it is hardly less potent in the peaceful activities of mankind.

In spite of insular pride and national sentiment we must admit that for the greater part of its history, and for all its prehistory, Britain was upon the outer edge of civilization. She was a poor relation to be treated with becoming condescension mingled with curiosity. None of the distinctive inventions that mark the periods of culture originated here. They arrived in the baggage of conquerors or the packs of traders and afterwards developed local peculiarities, but this was not the land of their invention. Not until the opening of the Atlantic and the growth of ocean sea power did England attain to a position among the leaders. Her great contributions to civilization are modern and medieval. The common law, parliamentary government, the great literature, the scientific discoveries, the basic inventions, the world-wide trade, the high finance, the imperial destiny : all these things belong to the last eight centuries. Before the birth of the Common Law in 1166, the world owned nothing that was distinctively English.

Yet the land has always been attractive, and colonists have braved dangers and difficulties to find it. Its history has been governed by its accessibility. The geologists had long discovered that all the primary

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rocks were confined to the north and west. The whole of Scotland and Ireland, the Pennine Chain and its outliers, the mountains of Wales and the moors of Devon and Cornwall, are, speaking broadly, all composed of the oldest rocks. They are also regions of high elevation and high rainfall and form a great highland zone. To the south and east the elevation and rainfall are lower. Downs and wolds replace mountains and moors in a lowland region of valley and plain. Haverfield first seized the historical significance of the geological structure. Dealing with the Roman period he proved that the lowland zone was the region of Roman civil occupation, of the country town and the villa. In the highland zone the occupation was exclusively military. Villas were absent and towns were superseded by forts. The fringe of highland forts, where the army was concentrated, formed a protective ring round the civil province in the lowlands.

Dr Fox has shown that the division into highland and lowland is fundamental, and has guided the movements and divisions not only of Roman but of other historical and of all prehistoric times. It is much more than a mere distinction between highland and lowland. Geologists have proved that a large part of the English Channel and the western zone of the North Sea are the drowned valleys of rivers. Our present coastline is the result of earth movements of no distant geological date, so much so that it is quite possible that the land-bridge now represented by the Straits of Dover was not broken through until the Neolithic period. The result is that the original tributaries of forgotten rivers flow down to the English Channel and the North Sea on both sides. The entry into the country from the continent is therefore easy and inviting, because it is merely a voyage down a slow river on the one side and up a slow river on the other, with a short sea passage between. The 'tightness' of the 'little island' can be greatly exaggerated: it is more accurate to call it a semi-detached portion of Europe.

The lowlands look to the lowlands; the highlands look to the ocean. That is the central fact of English geography. To appreciate its importance it is only necessary to imagine the converse. If the highlands had faced Europe, and the lowlands the Atlantic, no stage of our story would have been the same. We should have been isolated as Ireland was isolated.

The most brilliant and far-reaching generalization in Dr Fox's paper is this: 'In the lowland of Britain new cultures of continental origin tend to be *imposed* on the earlier or aboriginal culture. In the

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highland, on the other hand, they tend to be *absorbed* by the older culture. Viewed in another aspect, in the lowland you get *replacement*, in the highland *fusion*'. Dr Fox illustrates the theorem from prehistory, but examples will at once occur to the historian. Rome's legacy of Christianity was absorbed in the highland zone to reappear in history as the Celtic church; the Norman culture was imposed on the lowlands by force of arms. The last instance nevertheless warns us of the necessity to register the exceptions to every historical generalization. Dr Fox is careful to say that invading cultures *tend* to be imposed on the lowlands, not that they are always imposed. The Norman culture was imposed for a time, it disappeared in the resurgence of Englishry, but in the process large portions of it were absorbed.

To this theorem, as to all others of the same kind, there is the one inevitable exception—the Anglo-Saxon conquest. Recent research in archaeology and philology only make more vivid the picture drawn by the historians of the great gap in our story. Mr Crawford has demonstrated the clean sweep made by the invaders of the Celtic system of agriculture after an existence of 1000 years. The Roman culture was truly imposed on the lowlands. The Celtic villages and agriculture were preserved as the bases of the economy of the province; the Roman culture imposed itself by the mere weight of its own merit. But the English invader changed all things and made most things new. Valley villages replaced upland centres, new fields farmed on different methods replaced the older ones which reverted to waste, boundaries were drawn through old centres of population. Only in exceptional cases does an English village stand on the site of a Celtic one. The place-names tell the same tale. The thorough work of the English Place-Name Society proves with increasing emphasis that Celtic names are of extreme rarity in the districts settled by the English. This is most striking in counties like Devon, Worcestershire and Yorkshire, where Celtic survivals might have been expected. The English culture was not imposed or absorbed; it replaced and exterminated, and broke the continuity as it had never been broken before.

Fleure and Whitehouse in 1917 attempted to generalize facts of this nature into the formula of 'the valleyward movement of population'. It was argued that from Neolithic times onward human settlement had moved steadily downhill. There are many cogent arguments in favour of the theory that cannot be set out here. It was not supposed that Neolithic man actually preferred the windy bleakness of moor and down to the snug shelter of a lowland home, but that

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until man had invented efficient tools of bronze and iron it was beyond his power to master the forests. Recent research has proved that the generalization was stated too widely. There were always significant exceptions, such as the Lake Village of Glastonbury belonging to the La Tène period of the Early Iron Age. Where man has built his home in the waters of a lake at about sea level, the valleyward movement is complete because it can go no further.

The exceptions multiplied. It was shown that Bronze Age settlements favoured a valley site, or at least a spring-line site, whenever the conditions were suitable. The map of the Bronze Age sites compiled by Dr Fox and Miss Chitty showed a high density of occupation along the whole length of the Thames valley. Then it appeared that the great hill-top forts and the Celtic agriculture associated with them belonged to the Early Iron Age. The most intense occupation of the uplands did not take place in the earlier times but in the time immediately preceding the historic period, and lasted well into it. The real fact is that the choice of habitation-sites was determined by soil conditions more than by elevation. Early man was compelled to live on a light and porous soil wherever he could find it. His greatest obstacle was the thick damp oakwood forests that grew on the heavy clays. These soils proved in the end to be the richest and most attractive, but their conquest demanded tools of iron and effort persistent and long-continued.

Further light has been thrown on the problem by researches into past climates. Our climate was probably always worth a grumble, but at some periods it was worse than at others. The present idea is that during the Bronze Age it was warmer and drier than at present ('Sub-boreal time'). These conditions would have restricted the growth of forest, and especially of forest of the difficult damp oakwood type, and therefore have encouraged lowland settlement. The lessened rainfall would also have made it difficult if not impossible to cultivate the light soils of the chalk uplands. Approximately at the beginning of the Early Iron Age (700-600 B.C.) these conditions were succeeded by a moister and colder climate ('Sub-Atlantic time'), and the on-coming of this climate was coincident with the great extension of the upland cultivation. The upland cultivation or Celtic agriculture lasted for about a millennium and was brought to an end with comparative suddenness by a people of the forest clearings—the English. It was not a movement, but a replacement; the invaders made their new homes in the valleys, and the old villages and the fields associated with them became as though they had never been.

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'Transportation is civilization', and if history is to be taken out into the open air she must move along the roadways. Historians, except those who ignored the Roman period of set purpose, have always realized the importance of the Roman roads. It has not always been recognized that movement is essential at all periods for trade and warfare, and that every period has its own distinctive system of communications. An upland society will have upland roads and a valley society will have lowland roads. Of the trackways of the neolithic and bronze periods we know nothing and can infer little. When we reach the upland civilization of the Early Iron Age we are on more certain ground. The ridgeways and harrow-ways that connected the hill-top forts and the Celtic villages formed a system of communications, the excellence of which we are only now beginning to appreciate. We are so accustomed to taking the low road that we imagine the high road to be a matter of constant climbs and impossible gradients. It is true that if a ridgeway has to cross a valley it performs the feat 'on its head', but this is an exceptional circumstance. The home of the ridgeway is a plateau country as distinct from a true mountain land. When the ridgeways are studied in relation to the settlements they connected, they are found to provide ways that are rational and easy. Dr Fox and Mr D. W. Phillips have some admirable remarks on the subject buried in a footnote to their report on the Survey of Offa's Dyke,⁵ and of the short dykes that preceded it. We may disinter a few sentences.

'The examination of these Short Dykes suggests that the ancient trackways of Wales deserve to be mapped and studied with far more care than they have yet received. Moving along those controlled by the Mercians in the eighth century, one is conscious that there existed, in the mountain complex of which the area examined formed part, a complete system of intercommunication almost entirely unrelated to that existing today. The alignments of this system are determined by the watersheds. The ways are essentially ridgeways, refusing, except under stress of absolute necessity, to cross any stream. . . . The comparative ease of movement on these naturally well-drained crest lines is enhanced by the absence of marked changes in level. For seven miles the Kerry ridgeway, passing through very broken country, does not change level through more than 100 feet, and this only by gentle gradients.

'The inhabitants of Wales were thus provided, by conforming to geographical conditions, with routes which afforded good going and which for the most part were easy to follow. . . . Thus we may conceive of human activity in early times proceeding along levels 500 to 1000 feet above those that we use today in the same areas'.

⁵ *Archaeologia Cambrensis*, June 1931, LXXXVI, 1-74.

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The subject of early roads is too large and intricate to be pursued further on this occasion. It must suffice to say that they fall into two perfectly distinct classes. First are the ridgeways, with their modification or development, the harrow-ways. The latter are upland roads that do not cling so closely to the water partings as the true ridgeways, and do not show quite the same reluctance to cross streams. In a different category are the hillside roads, perhaps better called the spring-line ways. They are difficult to date with any certainty but it is possible that some of them may go back even to the Bronze Age. The Icknield Way and the Pilgrim's Way are well-known examples. An anomalous third class is the hollow-ways. They are generally short sections of track leading from the upland to the valley, but through roads of the other types develop into hollow-ways when they pass down slopes.

It is a commonplace of criticism that the historians of the greatest maritime power of modern times have shown little interest in sea power or appreciation of its conditions. Naval history has been relegated to specialists instead of being treated as the foundation of national existence. It is hardly too much to say that an American historian first explained this vital phase of our history to ourselves. If the high seas have been neglected, the inland waterways have been ignored. The first and the best untechnical account of the matter is contained in the opening pages of Mr Hilaire Belloc's *Historic Thames*. 'England', he says, 'has been built up upon the framework of her rivers'. This is true of some periods rather than of all, but it is certainly true of the civilization built up by the English and the Danes. The principle should be limited to the slow-flowing rivers of the lowlands, because it is exceptional for the rivers of the highland zone to be navigable beyond the tidal reaches. The essential conditions are high tides, low watersheds, and slow-flowing rivers.

In the lands that border the Mediterranean Sea the tides are negligible and no help to navigation, but England feels the full force of the ocean tides and their effect is heightened by their being caught in narrowing channels like the English Channel, St. George's Channel, and the Severn Sea. The most spectacular phenomena are the Bore of the Severn and the Eagre of the Trent, but it is not only in those rivers that the tide makes 'a silence in the hills'. The silence in the hills admits the noise of the ships.

'There are few things more instructive when one is engaged upon the history of England than to take a map and mark upon it the head of each navigable piece of water and the head of its tideway, for when

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this has been done all England, with the exception of the Welsh Hills and the Pennines, seems to be penetrated by the influence of the sea'.⁶

There may be few things more instructive but how many historians have ever done it, or if so have allowed it to influence their historical outlook? The lowlands of England are a well worn landscape partly sunken. Therefore the high tides flow far up the gently graded entrance-channels, and from the heads of the tideways boats of shallow draught can nose their way up the slow streams to within a short distance of their sources. Not only so, but the tributary rivers form great fans of waterways penetrating most parts of the country. Again, the watersheds are low and easy to pass, and the land portorage from one waterway to another is never long. The Thames is navigable at least to Lechlade and before the digging of the canals it was navigable to Cricklade. From these points the journey over the Cotswold country to the Severn on either of the Avons would be a matter of two or three days even for fairly heavy loads. It is sometimes made a matter of wonder how goods were transported along foundrous medieval roads in cumbersome medieval carts. The answer is that for the most part they went by water.

A small amount of delving into the records will prove this to the hilt. If the accounts of the building of a castle or an abbey can be found, it will generally appear that, unless local materials were very accessible, the stone and the timber came by water. The distribution of the Caen stone from Normandy is most instructive. It 'was used all over the South and East of England, in the Tower of London, in the freestone of the Norfolk towers, in Eton College in the fifteenth century, in Henry VII's Chapel at Westminster, and in Buckingham Palace some centuries later'.⁷

In the seventeenth century Inigo Jones introduced Portland stone into the capital. He and his successors used it for the Banqueting Hall of Whitehall Palace, the new St. Paul's Cathedral, Somerset House, the British Museum, and some of the Government offices. The quality of the stone is excellent but the vital factor was the cheapness of the water transport. The quarries are on the sea coast.

The matter is charmingly set forth in one of Walter Bagehot's shorter essays entitled 'Boscastle'.⁸ The insight of the great economist, who could unravel the intricacies of the money market, did not fail when he considered the significance of these tiny havens, of which

⁶ Belloc, *op. cit.*, 3. ⁷ Wickham, *The Villages of England*, 35.

⁸ Bagehot, *Collected Works*, IV, 334.

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Boscastle is one among hundreds. They were the nerve centres of their little countrysides, because through them alone could the countryside obtain the things that it needed but could not make. 'The sea' (and we may add, the river) 'was the railway of those days'.

The railway was the basic invention of the nineteenth century, but in the early stages of the industrial revolution the railway had not been invented. Its immediate predecessor was the canal. But the canal was no new invention in the sense that the railway was a new invention. It was merely a development of a basic system of transport stretching back beyond the confines of our written history. It was likely that it went back far into prehistory. The Avenue of Stonehenge went down to the Avon and the blue stones of Stonehenge came from the Prescelly Hills in Pembrokeshire. They could only have come by sea and river. Dr Fox's map of the Bronze Age sites shows a continuous mass along the whole length of the Thames valley. Quite an appreciable number of 'finds' have been dredged from the river bed itself. It seems impossible to resist the conclusion that the Thames was a highway of traffic in the Bronze Age, and that water transport was used extensively in the megalithic period. 'England has been built up upon the foundation of her rivers'.

The most striking, if not the most important, results of the open air study of history have been achieved in the periods before written records existed, or when they were few. Many examples could be cited. Sir Charles Oman's attempt to provide a definite historical stage for the Wansdyke is a good one. So is Mr Crawford's effort to connect the Cloven Way with the invasion of Cerdic already mentioned. We propose, however, to add a few remarks upon Dr Fox's studies of the Dykes.

Dr Fox began the study with the Cambridgeshire dykes in *The Archaeology of the Cambridge Region* (1923) and continued it in an utterly different environment with Offa's Dyke in the Marches of Wales. Pitt-Rivers began the investigation of these visible and defensive frontiers with Bokerly Dyke and Wansdyke. He proved that they could not have been constructed earlier than the very end of the Roman occupation, and were probably later. All later investigation has confirmed his conclusion. Where any definite evidence of date is available, all the dykes have been shown to belong to the Dark Ages. Any suggestions of a prehistoric origin or of 'Belgic Ditches' must be definitely abandoned. This positive conclusion of archaeology is supported by historical reasoning. A visible frontier is of particular

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utility to a higher civilization in uncomfortable contact with a lower. It says clearly to the undesirables and the outlanders—‘ You are not wanted, thus far shalt thou go and no further ’. These conditions obtained in varying circumstances and at different times throughout the Dark Ages. And the origin of the idea is clear. These people had before their eyes the remnants of a civilization far higher than their own which had treated a like problem in a similar manner but with greater efficiency. The dykes of the Dark Ages are the echoes of Hadrian’s Wall and the German *Limes*.

Of the interest and fascination of the study of these defensive frontiers there is no doubt. As Dr Fox says :⁹

‘ The special fascination which the linear earthwork has for the field worker is here revealed. The survey of a work of this class vividly brings home to the student a forgotten England : an island mainly covered by forest, whose valleys were swamps in which the rivers followed devious and changing courses. Belts of gravel by streams and rivers, sandy heaths, chalk down-lands, limestone ridges, and, in the West and North, the ancient rocks which form the mountainous backbone of the country, were either open or sparsely forested and suitable in great measure for man’s dwelling-places, his primitive agriculture, his traffic, and the sustenance of his flocks and herds. Human activity in southern Britain was thus, geographically speaking, strictly limited, and movement was canalized—restricted for the most part to definite routes, the position and extent of which were determined by the geological structure of the country ’.

The most valuable results of the survey of Offa’s Dyke were those least expected. It was proved that the line of the work must have been settled by a negotiated treaty, that its lay-out must have been the work of a single mind, that its construction was skilful and adaptable, and that the openings through it were carefully selected and closely guarded. But the insight of Dr Fox produced conclusions far more interesting than these.

He observed, especially in Montgomeryshire, where the dyke definitely enters the upland country, that its alignment was of two types distributed with apparent irregularity. In the first type the alignment of the earthwork was demonstrably straight between two points visible from one another. In the second type the lay-out did not diverge in a marked manner from the straight line but the actual course was sinuous. The explanation of the first type was clear. The country was open when the dyke was made, and the drawing of a straight line presented no difficulty. But what of the second, the sinuous, portion ? The suggested explanation is that the dyke was here

⁹ ANTIQUITY, June 1929, III, 138.

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driven through forest and jungle. The engineer laid out his straight line even in the forest, but when the gangs came to dig it out the frailties of human nature prevailed. They avoided the thickest clumps, and went round the largest trees instead of felling them.

The consequences of this deduction are far-reaching. In an age and a country from which we have no contemporary local record of any kind, we can define precisely the limits of the forest and the sown. In this way we can formulate conclusions as to the economic conditions of the Mercian borderland in the eighth century that could be drawn in no other way.

From a more southerly section of the dyke can be drawn an inference no less informative. Dr Fox proved (in correction of previous observers) that the moment it touched the richest agricultural land of the Herefordshire plain it disappeared completely, except for a few isolated stretches. Here was an anomaly indeed, but a convincing theory was forthcoming to solve it. Geological structure supplied the clue. The dyke disappeared at the very point where it touched the outcrop of the Old Red Sandstone. There is abundant evidence, physical and historical, that the Old Red Sandstone under natural conditions carried a forest growth of exceptional density. Therefore the conclusion is that all that smiling land of laden orchards and white-faced cattle was untouched forest in the eighth century. The short intermittent sections of dyke mark the only points at which settlement had occurred. The rest was impenetrable jungle and no dyke was made through it because none was necessary. A visible frontier is not required where there is no man to see it. Here again is an historical fact of the utmost importance that history can only observe when she has been taken out into the open air.

The portions of the dyke in the lower Wye give rise to a more beautiful piece of historical inference. From a point above Hereford to Redbrook the great river was itself the boundary. At this point the dyke recommences and climbs to the edge of the high plateau on the left or English bank of the river. There, along one of the most magnificent pieces of scenery in the country—'a plateau edge overlooking a swift river in a winding gorge, a gorge which is narrow, precipitously flanked, and in places 600 feet deep'—ran the great frontier to its termination at Sedbury cliffs on the banks of the tidal Severn. Whatever may have influenced King Offa in choosing this line, we may be certain that obtaining a glorious view, even over Wales, was not the paramount consideration in his mind. The inference drawn

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by Dr Fox is that here again we have evidence of a negotiated treaty ; evidence written plainly on the face of the countryside. The dyke starts the last lap of its southward journey just above Redbrook. Redbrook is the highest point on the river which the exceptional tides of this estuary ever reach. The main clue to the line of the dyke in this portion is therefore that it was designed to leave the tidal water on both banks in the hands of the Welsh. The Welsh were established there, and Offa wisely decided to secure peace by leaving the timber trade and the salmon fishing in their hands. Records attest the importance of the timber trade in the Middle Ages, and even now Tidenham Chase is being exploited by the Forestry Commissioners as an annex of the royal and ancient Forest of Dean. As for the fishing, who has not enjoyed Wye salmon as a special treat ? The truth of this explanation is attested not only by the general line of the dyke, but by two marked features. A great loop of the river, although on the English bank, is left in the hands of the Welsh, and the dyke is carried across the neck of the loop. This contained the hamlet of Lancut (Landcawet) which was still Welsh at the time of King Edwy's charter to the monks of Bath in 956.¹⁰

Again, a short distance below Chepstow the dyke suddenly turns away from the river and passes in a straight line to its termination on Sedbury cliffs. The effect of this was to leave the mouth of the river and the peninsula of Beachley on the Welsh side of the dyke. Beachley still contained a hamlet of Welsh sailors, then paying rent, in the time of King Edwy ; and, more remarkable still, it had a Welsh lord right through the Middle Ages, when the whole of the sea-plain of South Wales was strongly held by the Normans and their successors. So here we have complete evidence of a seaport and a fishery deliberately left in the possession of its immemorial holders.

Nevertheless, subject to one exception. The Roman road from Glevum (Gloucester) to Venta Silurum (Caerwent) crossed the Wye by a bridge, the piles of which are still in the river bed, at Tutshill just above Chepstow. The bridge may or may not have survived to the time of Offa, but the crossing certainly did. At this point there is a gap in the frontier and no dyke or natural obstacle exists on the English side, but the dyke on both sides of the gap does down to the river bank. The purpose of this arrangement is plain. Offa was quite willing to leave the trade and the fishery in the hands of their Welsh holders,

¹⁰ Seebohm, *English Village Community*, 149.

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but a bridge-head on a through route was another matter. The soldier intervened and said that while trade and fishing could remain free, he and he alone must hold the passage of the river.

This must end our examples and our discussion. No true history can be written without documents ; they are the life-blood of the study. As Lord Acton explained so clearly, history became scientific as it passed from the age of the chronicles to the age of the documents. But there is one document that no historian can neglect except at grave peril, and that is the face of the country. It is not easy to read ; to many it conveys neither message nor meaning. The man who would read it must own the tools of the trade. He must have assimilated the main facts of stratigraphical geology and be able to apply them. He must know the principles of transport by water and by land, and what forms of movement are natural and easy, and what are distasteful and difficult. He must know the principles of strategy and tactics, and the conditions that govern the movements of bodies of men. He must have an eye for a military position, and an eye for a commercial position. He must know where and how men lived at different levels of civilization, the conditions that attracted them and the reasons therefor. Above all he must be able to read a map, to appreciate what is significant in geographical control, to have an eye for country and a feeling for landscape. He must love the high places of the earth and have felt ' the tangle of the isles '. And he must remember that this knowledge can be gained in one way and one way only—by tramping the country on his own feet.

But the matter has a still deeper significance. The English people are a people of the open air. From the time of their first landing they avoided towns and sought open villages. The real English stock has never taken kindly to towns, even when circumstances have forced urban life upon it. The Mediterranean type of town has never become acclimatized here. Even now the ideal of English town-planning is the garden-city—a town that is made to look as little like a town and as much like a bit of the country as it possibly can. So the conclusion is plain. The true life of England is a life of the great spaces and the open air, and the historian who would portray that life rightly must be a man of the open air.

Aspects of the Neolithic and Chalcolithic Periods in Western Europe

By JACQUETTA HAWKES

OF all the prehistoric periods yet distinguished in Western Europe the Neolithic has suffered the hardest fate. Having in the past enjoyed a seemingly secure and important position in the field of prehistory, with an estimated duration of several thousand years, this unfortunate period has of late been so assailed before and behind that its very existence has been called in question. In Britain, however, recent researches seem to have rescued our Neolithic from complete extinction by the encroaching Mesolithic and Bronze Ages, and given it an established position once more, albeit a more humble one than it occupied in its days of undue inflation. Because it has become better understood, an epoch to which formerly thousands of years were allocated is now limited to hundreds.

Very recently Mr Stuart Piggott has published a careful analysis of British 'Neolithic' pottery,¹ which has done much to give solidarity and meaning to the period as a whole. Plainly, however, the British evidence cannot be fully understood without consideration of continental origins and relationships. For the Windmill Hill culture of Britain, so clearly defined by Mr Piggott, this consideration is made difficult by a lack of scientific work in important areas of France and elsewhere. The difficulty was made evident in the companion paper to Mr Piggott's, where Professor Childe² discussed certain groups of supposedly neolithic continental pottery and their affinities with Windmill Hill: it is the aim of the present paper to supplement some aspects of his work.

Professor Childe dealt particularly with the three groups of Michelsberg, Chassey and Breton pottery, all members, like the

¹ *Archaeological Journal*, 1931, LXXXVIII, 67-159.

² *Ibid.* 37-66.

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Windmill Hill ware, of the great Western family first shown by Schuchhardt to owe its individual character to a derivation from leather prototypes. These three groups, while showing a family likeness, each possess distinctive features which are the natural results of divergent specialization. The fact that Windmill Hill pottery is without these features suggests to Professor Childe that the British culture split early from the Western stem. This is perfectly in accordance with the evidence from Mr Keiller's classic section at Windmill Hill itself. Here Mr Piggott has been able to expound the division of the Neolithic into two phases : that from the lowest levels, characterized by pottery confined almost entirely to his simple forms A, B and C, he calls Windmill Hill A 1, while the upper levels where the pottery shows greater sophistication of form, with carination and thickened rim, represents his A 2. This morphological development must have covered a considerable period, and a sterile layer indicates a further lapse of time before the first appearance of Peterborough and Beaker ware, which can be dated soon after 2000 B.C. An early dating for the introduction of the Windmill Hill culture into Britain is therefore made probable by the evidence from the type station. Thus it would appear that Professor Childe may have made his survey at too late a period of the continental development to find the closest analogies to Windmill Hill. The present writer believes that if an earlier one be made, it reveals a 'Western' culture in which little specialization has taken place, a culture which shows much closer affinities with the earliest Windmill Hill of this country. Let us then cast further back to see what possibilities there are to be considered in an attempt to trace the ancestry of the cultures Professor Childe has discussed.

The Western Mesolithic cultures, in particular the Tardenoisian, plainly look backward to the palaeolithic rather than forward to the neolithic : but it has been claimed that the early neolithic 'pick' culture of northwest Europe, in which Tardenoisian survivals can be traced, played an important part in the production of the Western Neolithic. This supposition throws a heavy responsibility upon the slender and elusive Campignien culture of North France and Belgium, a responsibility which it is in no way able to bear. It has been proved by Schwantes³ that the classical French sites for this culture are no earlier than the Chassey period, while the early date of the 'Alt-Campignien' of Belgium has been discredited by Van Giffen⁴. It is

³ *Germania*, xvi, 177-85.

⁴ See references quoted in *ibid*.

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indeed clear that the Campignian should be regarded merely as a late and poor extension of the Forest Cultures of the Baltic area, incapable of giving rise unaided to any of the cultural innovations of the Western Neolithic. Plainly these elements must ultimately derive from the Near East, although undergoing development and change in the West. The old story of the diffusion of neolithic culture from the eastern Mediterranean by a moving race of megalith builders has long been discredited. Not only are megaliths proved to be associated with entirely different culture-traits in different geographical areas, but also the dolmen, generally regarded as the basic form, is now found to be absent in many areas where its presence is essential to the credibility of the old theory. Moreover in the Iberian Peninsula, a natural link between East and West, whatever the debated megalithic sequence may be, it is certain that the oldest neolithic culture, the Almerian, is non-megalithic in character. It cannot therefore be held that megaliths are an original feature of the neolithic culture of the West, for this must have been already established before their earliest appearance. Rather we must picture a 'megalithic idea' forming essentially not a culture but a religion, diffusing and becoming superimposed in many differing forms upon a wide variety of cultures.

The Danube corridor forms another possible route for the introduction of the germs of the Western Neolithic, linking, as it does, eastern Europe and ultimately the Aegean with the West, where the Omalian of Belgium marks the furthest extension of the Danubian culture. However, this culture is so highly specialized as to be unmistakable and Professor Childe has been obliged to admit⁵ that it cannot be held responsible for many essential 'western' features. Notably the western forms of celt completely exclude the 'shoe-last' variety so typical of the Danubian, while the gourd-like Danubian pottery cannot have given rise to the 'leathery' *Westenkeramik*.

Having dismissed mesolithic survivors, megalith-building voyagers and Danubian peasant colonists, what culture sufficiently early for our purpose remains to be considered? Thanks to the pioneer work of M. Vouga on Lake Neuchâtel, we can now confidently put forward the earliest Neolithic of the West Swiss lake-dwellings. As Professor Childe has pointed out⁶, M. Vouga's work gives new meaning to Reinerth's division of Switzerland into an Eastern and a Western culture province; the eastern due to Danubian inspiration, the other now to be considered

⁵ *Danube in Prehistory*, 172.

⁶ *Ibid.* 165-7, 172.

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quite distinct and truly western in character. This becomes significant when it is admitted that M. Vouga is surely right in correlating the flooding between Aichbühl I and II in east Switzerland, not with that between his periods I and II on Lake Neuchâtel, as suggested by Reinerth, but rather between his II and III. Thus Vouga's period I will be absolutely earlier than the first appearance of Danubian influence in east Switzerland, probably before 2300 B.C., and contemporary with Danubian I further east. Now Professor Childe has conceded that many elements in what we shall henceforth refer to as Vouga I are of a western facies,⁷ notably celts, *petits tranchets* and Emmer wheat, but it appears to the present writer that the pottery, so far from confusing this evidence as he suggests, strongly corroborates it. If FIG. 1, A-B be compared with FIG. 1, C-F, it will be evident that in form the vessels of Vouga I closely resemble the early Windmill Hill examples. Piggott's forms A and B are very prevalent, with or without simple lugs. The shallow bowl with twin lugs and the 'vase biconique' are the only typical shapes without close parallels from Windmill Hill. The paste of this early pottery is like that of the British ware in being well smoothed and containing large grits. Ornamentation is practically non-existent, but small pierced holes below the rim afford another parallel.

Nor is this culture confined to Switzerland. It may be traced over the French border in the lake-dwellings of the Jura. In the material from the site on Lake Chalain the antler sleeves and pendant forms (FIG. 2, D) as well as the pottery (FIG. 2, A-C) seem to prove that this settlement had already commenced during Vouga I, although it probably stagnated until the Bronze Age when, as we shall see (p. 35) applied strip-ware came in from the south. The Jura camp of Montmoret appears, although poorer, to have had a similar history and must have been occupied by the same people.

Further, at the famous but unpublished site of Camp de Chassey (Saone-et-Loire) there is strong evidence for the existence of this same culture at a period preceding that of the decorated ware. Here again can be distinguished a series of pots of Piggott's forms A and B (FIG. 3): they have simple lugs and are of a well smoothed paste containing grits like the earliest lake-dwelling pottery, but contrasting with the decorated forms which are either burnished or sandy in texture and are usually very elaborate, with carination, multipierced lugs, etc. The occurrence of unheeled antler sleeves, rectangular schist and segmented antler pendants, as in Vouga I, gives substance to the ceramic evidence.

⁷ *Danube*, 172.

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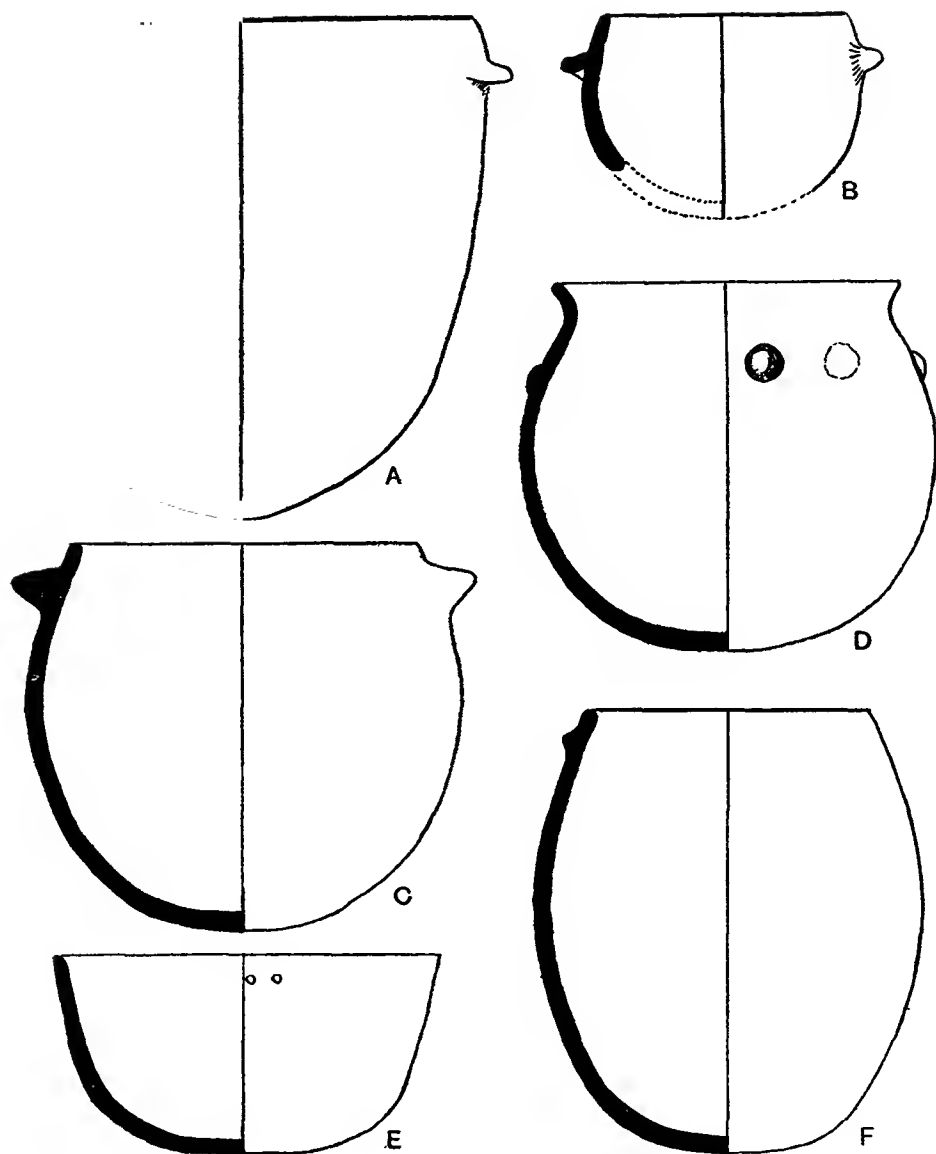


FIG. 1

A, WINDMILL HILL ($\frac{1}{2}$). B, WINDMILL HILL ($\frac{1}{4}$). C-F, NEOLITHIC AT NEUCHÂTEL ($\frac{1}{2}$)

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This division of the Camp de Chassey pottery into an earlier plain and a later decorated group seems to find confirmation in the South, where we can now further trace our early western ceramic. Frequent in the material from South French cave-sites is the occurrence of a ware characterized by finely incised designs and multipierced lugs

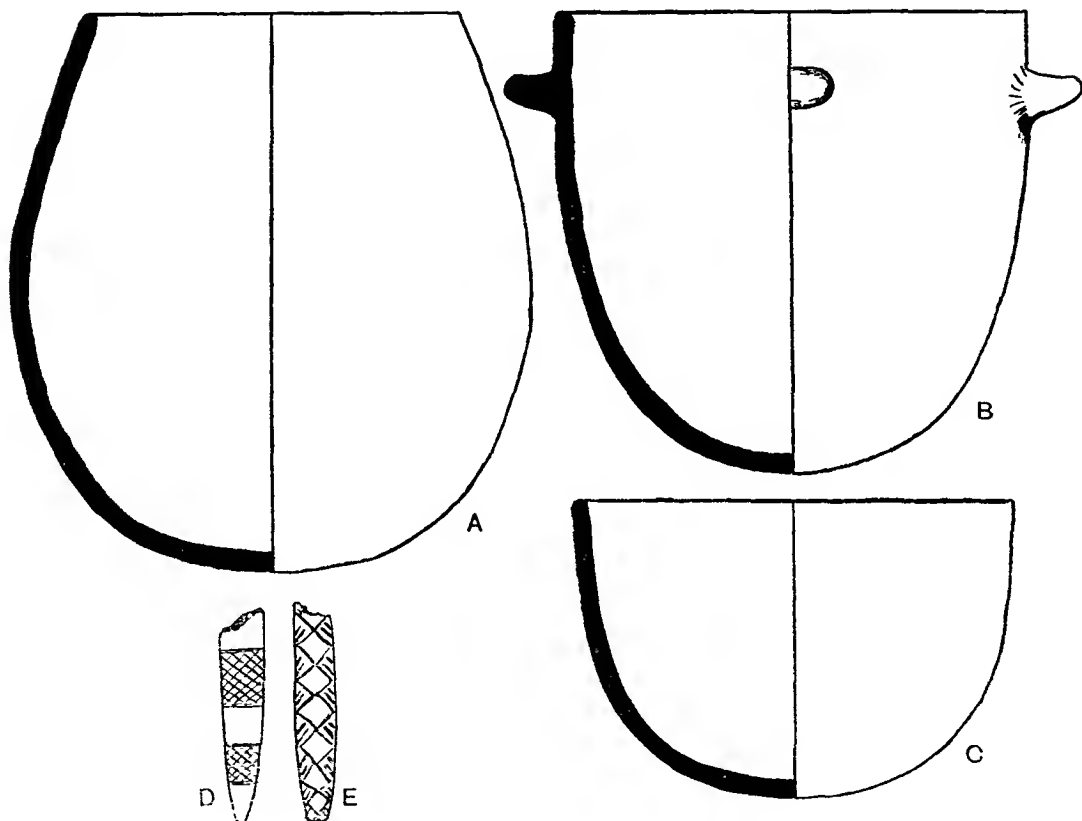


FIG. 2

A-C, LAKE-DWELLING, CHALAIN, JURA ($\frac{1}{2}$). D, PENDANT, NEUCHÂTEL: LOWER NEOLITHIC ($\frac{1}{2}$)
E, PENDANT, CHALAIN ($\frac{1}{2}$)

almost identical with the decorated Chassey; also common is a plain ware with simple lugs. A lack of scientific excavation has hitherto obscured any understanding of a possible significance in this differentiation. Now, however, M. Hélène of Narbonne is excavating the cave habitation

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site of Bize (Aude) where this incised ware occurs clearly stratified above a level yielding only unornamented pottery with unelaborated

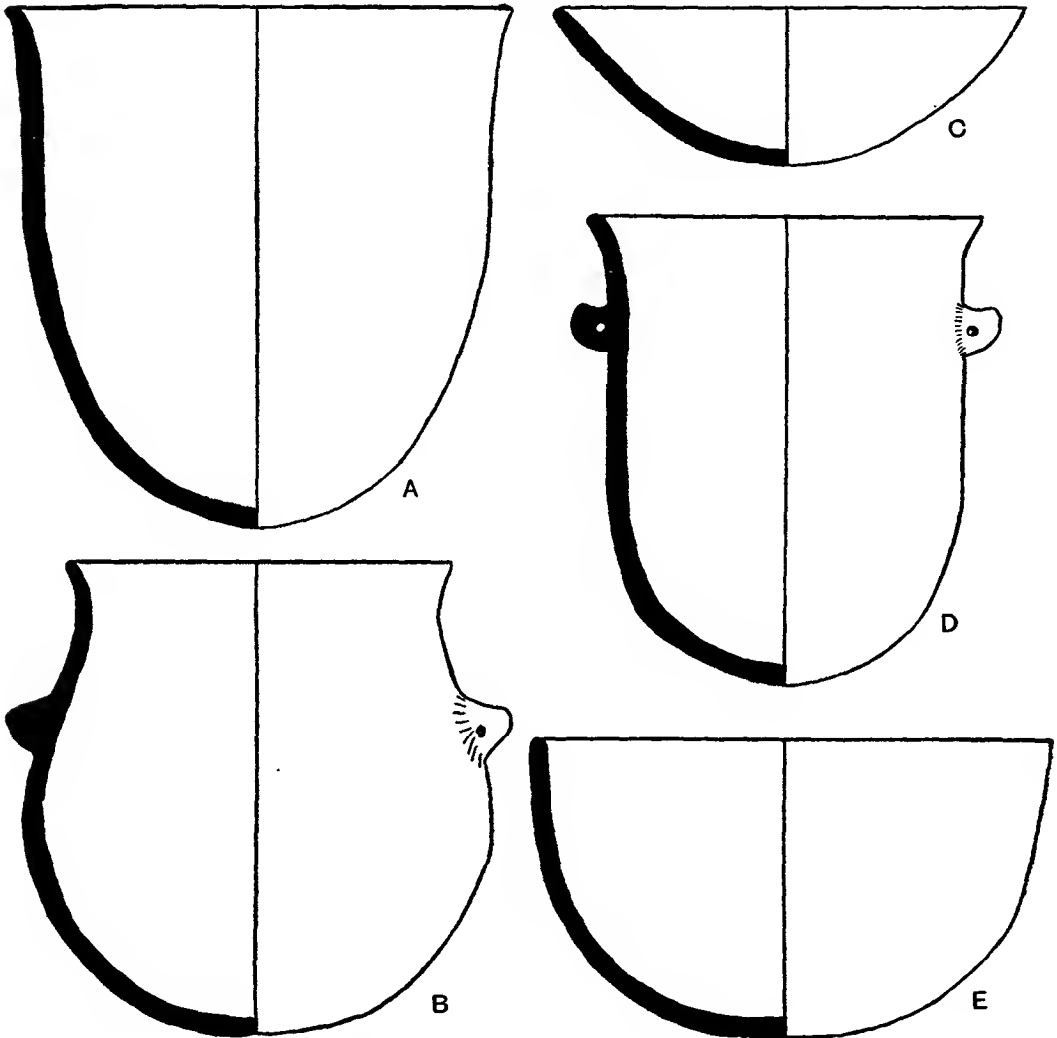


FIG. 3

A-E, FROM CAMP DE CHASSEY, AT AUTUN MUSEUM ($\frac{1}{2}$)

lugs. This level, it is perhaps worth noting, was separated by a sterile layer from the underlying mesolithic, showing that here at least there was no continuity between the two cultures. The material from this

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site is as yet insufficient to give a clear idea of the prevailing forms of the plain ceramic, nor with the single exception of a leaf-shaped arrow-head is there anything other than pottery from this horizon. Yet more work may well make possible a classification of the already existing material from the cave-sites, a task which at present would be hazardous. Already there is enough evidence to justify the claim that the culture, as typified by its pottery, which we have recognized in Britain, western Switzerland and the Jura lake-dwellings and seen to have preceded the decorated ware at Camp de Chassey, occurs also in the Midi. Now Professor Childe has already noted that there are many elements in the South French cave-culture which are common to Vouga I in Switzerland.⁸ Thus Reinerth's original contention⁹ that a Western Culture travelled up the Rhône Valley to the Swiss Lakes may well have incorporated, even while distorting, the historical truth.

What was the further extension of this culture in northwest Europe it is as yet impossible to judge; it must have spread northward and ultimately come into contact with the southern fringes of the Baltic Forest cultures in North France and Belgium. It is even conceivable that the ill-defined term Campignian may have served to cloak its existence in this area. The early Danubian II period saw the western area cut off from the Forest cultures by the interposition of the 'Bandkeramik' wedge extending as far as the Omalian of Belgium; the Western Culture makes its appearance on the Lower Rhine only in a developed form, as the Michelsberg, after the Bandkeramik had already become established there. Concerning the diffusion of the Western Culture to Britain, a study of such material as we have suggests that the earliest Windmill Hill pottery stands closer to that of Vouga I than to the Midi ceramic. This would seem to be evidence against a seaborne diffusion from the South for the British culture. The fact that in the Jura the lake-settlement of Chalain and the Camp of Montmoret were simultaneously inhabited by the same people shows that in this early neolithic, as commonly in subsequent periods, lake-dwellings and camps were but alternative forms of habitation. This consideration strengthens the link connecting the earliest lake-dwellings of the continent and the earliest fortified camps of Britain.

Here then we have attempted to establish the existence of a Western Culture which is both pre-metal and non-megalithic, but which cannot be derived either from the Baltic or from the Danube. Let us now

⁸ *Danube*, 172.

⁹ Reinerth, *Die jüngere Steinzeit der Schweiz*, 18

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advance a step and consider the field once more at the period chosen by Professor Childe for his survey, when this early culture had developed into several well differentiated cultural groups retaining only certain elements in common as an ancestral inheritance. We will begin in the north of our area with the relatively well known Michelsberg culture. Professor Childe has shown that this culture has considerable Danubian

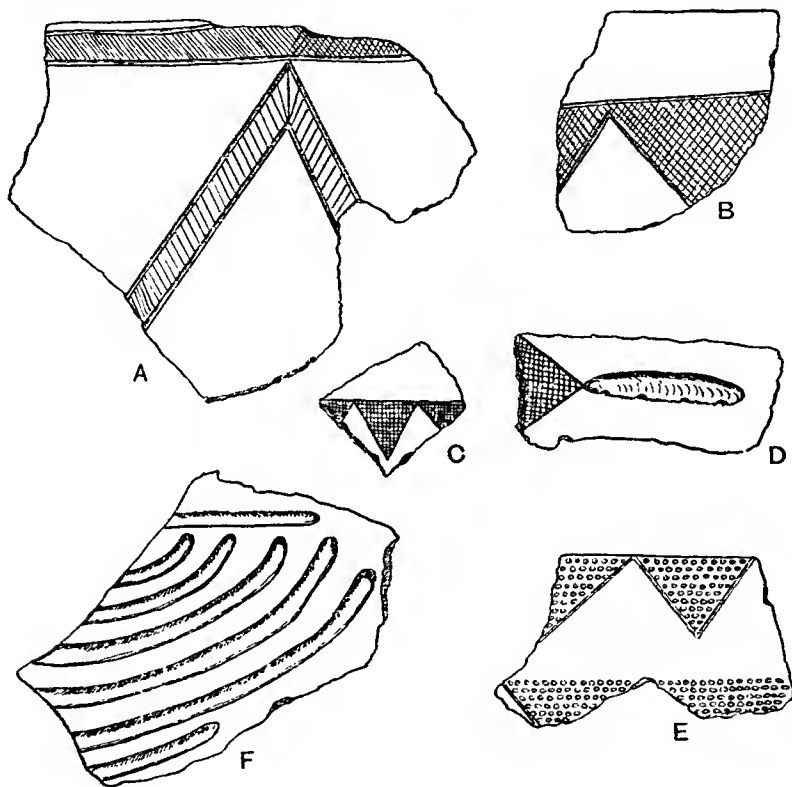


FIG. 4

A, B, E, GROTTÉ DE BIZE, AUDE (B, E, $\frac{1}{2}$; A, $\frac{1}{4}$)
 C, D, GROTTÉ ST. VÉRÈDÈME, GARD ($\frac{1}{2}$)
 F, GROTTÉ SALPÊTRIE, GARD ($\frac{1}{2}$)

influence and that in time it may confidently be assigned to the III phase of the Danube which it may even have outlasted.¹⁰ In his subsequent paper he stresses the essentially Western character of the Michelsberg,¹¹ particularly as manifested by the pottery. It seems

¹⁰ *Danube*, 182.

¹¹ *Archaeological Journal*, 1931, LXXXVIII, 37-66.

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very probable that this culture with its pile-dwellings and fortified camps, its celts hafted in antler sleeves and its 'leathery' pottery, was indeed a descendant of our early Western Culture as represented by Vouga I, which, having absorbed Danubian influences and developed specialized forms of its own, spread down the Rhine during the Upper Neolithic and Chalcolithic periods of West Switzerland.

The relationship and approximate contemporaneity of the Michelsberg and 'decorated Chassey' cultures is easily demonstrable. Chassey incised ornament of the early style occurs on Michelsberg ware from stations on the Upper Rhine, while at Fort Harrouard (Eure-et-Loir) baking-plates of the orthodox Michelsberg type occur from both levels

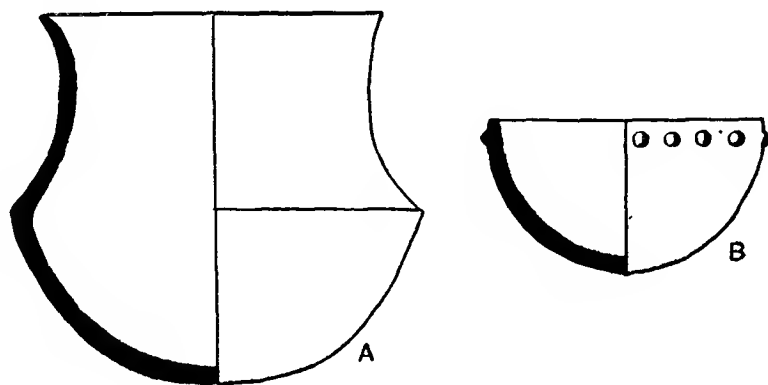


FIG. 5

A, GROTTÉ ST. VÉRÉDÈME, GARD (†)

B, NÉCROPOLE DE CANTEPERDRIX, GARD (†)

and the pottery forms are very similar.¹² It has already been mentioned (p. 29) that pottery characterized by incised geometric decorations and multipierced lugs occurs at many sites in the South French cave-culture. Decoration, which is invariably geometric, is commonly executed in finely incised lines with interior hatching (FIG. 4, A-D) but sometimes in rows of punctuations (FIG. 4, E). Frequent motifs are triangles, chevrons, and zigzags. These designs may be encrusted in white or red clay, a feature which finds parallels in the Chassey culture notably at Fort Harrouard and Catenoy. Rows of applied knobs are also typical (FIG. 5, I). In general the ornamentations show a remarkably

¹² Abbé Philippe, *Cinq Années de Fouilles au Fort Harrouard*, 127.

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close similarity to that of Chassey ware. Long lugs with three or more perforations, flat applied multipierced strips (*flûtes de Pan*) are again identical with Chassey examples. In the pottery forms this resemblance is no less noticeable. Carinated bowls are typical, pottery lids not uncommon, while at the Grotte de Bize M. Hélène has found fragments of a twin cup. Plain vessels, identical in form and paste with the decorated examples, clearly belong to the same class (FIG. 5, 2).

In an attempt to date this pottery in the South of France the evidence from the Grotte de Bize is again invaluable, for here the decorated level was stratified under corded beaker ware. Further information is forthcoming from this same district. A series of careful excavations has enabled M. Hélène to divide the cave-culture of the Aude district into four chronological periods. The decorated ware described above is typical of the first of his divisions, of which the Trou du Loup affords a representative example. At this site the pottery includes a round-bottomed bowl with multipierced lugs and a small carinated vase ornamented with hatched triangles. Other material from this burial-site will here be enumerated as typical of this class.

Flint :

- 7 tranchet arrow heads
- 7 tanged and barbed arrow heads
- 4 leaf-shaped arrow heads
- 1 broad-edged arrow head of Egyptian type
- 1 delicate leaf-shaped lance head
- Numerous blades

Beads of Serpentine and Callais

Rectangular schist plaques

The three other divisions of M. Hélène's classification may be conveniently enumerated here.

His second period is typified by beakers, and marks the first appearance in the Aude of metal and applied strip finger-tip ware ; the Grotte de Falaise is a representative site. The third phase is a development of the second, the well known *perles à ailettes* can be taken as the type fossil. Bronze is now abundant, as for example at the site of the Grotte du Ruisseau, Les Monges. Typical of the fourth period are arrow heads with long tangs and barbs of Iberian type ; that this phase lasts well into the Iron Age is proved by the occurrence of Hallstatt pottery at some sites and even a fragment of a Hallstatt fibula at Grotte des Escaliers, Armissan. To this period belongs the

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developed applied strip-ware and, although the finger-tip form begins in Hélène's period II, Bosch Gimpera's early dating for this ware seems clearly to be at fault.¹³ Strong support for this contention comes from the Gard district where, at the Grotte Meyrance, applied strip-ware is found with a bronze dagger and beaded bronze bracelets. This ware penetrated as far as the Jura, occurring abundantly at the lake-dwellings of Chalain and Clairvaux. (See p. 27).

To return to the decorated ware: M. Hélène has never found metal associated with it in the Aude, but at the Nécropole Cantepèrdrix, Gard, it occurs with a conical bone button with v-perforation and a strip of bronze ornamented with incised triangles. Thus there is clear evidence that in the South of France, at the mouth of the Rhône and at least as far west as the Aude, an incised pottery very closely related to the decorated Chassey was dominant immediately before the period of beakers there. In this area it clearly dates from the Chalcolithic, but it must be emphasized that this does not imply that metal was in use further north. The Mediterranean character of many elements of the Chassey culture has long been recognized.¹⁴ Evidence, therefore, all suggests that this culture was introduced from the South by way of the Rhône valley to the Camp de Chassey region, where it was superimposed on the earlier plain ware culture which it had already encountered in the Midi. Thence it must have spread as far north as the Upper Rhine and westwards to the Seine-et-Oise area where we find it so richly represented at Fort Harrouard and Catenoy. Belatedly it spread further west to Brittany where only the later forms as distinguished by Philippe at Harrouard¹⁵ are of common occurrence. The decorated wares of the Camp de Chassey and Fort Harrouard regions, although strongly resembling the incised wares of the Midi, naturally show some differentiation, particularly in the great popularity of the *vase support* and the ornamentation in alternately hatched and unhatched triangles (*à damier*), neither of which is prevalent in the south. The culture did not penetrate thoroughly as far east as the Jura, but a multipierced lug from the so-called Upper Neolithic level at Montmoret may betoken a slight influence.

It is now time to turn to a discussion of a type of pottery frequently associated with the incised ware in the South of France which, apart from its inherent interest, has a direct bearing upon British problems.

¹³ *Reallexikon*, IV, I, 22 ff. ¹⁴ Déchelette, *Manuel*, I, 559 ff.

¹⁵ Abbé Philippe, *Cinq Années de Fouilles au Fort Harrouard*, pl. xxiv.

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This is the ware à *cannelure*. Professor Childe in his paper¹⁶ refers to a bowl now in the St. Germain museum from Viala, Gard, which he with great perspicacity relates to the well known vases from Conguel, Brittany, and thence with British examples. A more certain connexion can now be established and the question of date discussed. This ware is greyish black in colour and usually burnished; bowls like that from Viala are a common form and a flattened tubular lug is typical. The most distinctive feature is the ornamentation executed in wide rounded grooves by means of some blunt-nosed tool. Concentric semicircles combined with panels of vertical lines is a usual motif (FIG. 4, F) but various combinations of horizontal and vertical lines arranged in panels are also common. This ware is of frequent occurrence in the cave burials of South France at least from Gard to Aude, where it is almost invariably associated with the incised ware already described.* Now unmistakable sherds of this ware are to be found among the material from the promontory fort of Peu Richard (Charente Inférieure)¹⁷, where the peculiar 'eye' pottery is identical in paste and in the execution of the design with the ware à *cannelure*. At the Grotte Availle sur Chize, Deux Sèvres, this eye pottery occurs with a much cruder ware ornamented in panels of rough zigzags and horizontal grooved lines similar to one of the bowls from Conguel. This chain of evidence leaves little doubt that the Conguel bowls and other Quiberon examples, although of cruder paste and execution, are directly connected with, and probably imitations of, the ware à *cannelure* of the South French caves. In regard to a possible extension of influence to Britain the writer believes that the relationship suggested between the Quiberon group and that of Beacharra (Kintyre) and Larne was well justified. The immediate derivation of both groups from the South French ceramic is at least as well substantiated by the foregoing evidence as is the recent claim for a Baltic influence in the British group. One of the Beacharra pots is decorated in the true grooved technique and there seems little reason against assigning the use of cord on other vessels from this site and on the Larne sherds to a Peterborough influence. Evidence for the dating of this group in the South of France is not lacking. It has already been said that it constantly accompanies

¹⁶ *Archaeological Journal*, 1931, LXXXVIII, 37-66.

* Examples thus associated come from the dept. Gard at the Grotte Salpetrière, Nécropole Cantepedrix, Grotte de Firolle, Grotte St. Vérédème, Grotte Fromagerie. From dept. Aude: Trou du Loup.

¹⁷ *Matériaux*, 1882-3, 505ff.

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the incised ware which we have there assigned to the Chalcolithic period, but further it occurs abundantly at the Nécropole Cantepedrix, conveniently associated with a conical button with v-perforation and a small fragment of bronze. It seems, therefore, that the South French ware à *cannelure* may safely be considered chalcolithic; but its western influence, if such an influence be admitted, perhaps preceded the extension of the use of metal to the remote regions of Brittany and Northwest Britain.

This discussion naturally leads up to the third of Professor Childe's western groups, the Breton. The essential point to be emphasized is surely the extreme lateness of this culture. At Conguel the grooved pots were found stratified below beakers, but at the settlement of Er Yoh M. Péquart has found sherds very similar to the zigzag Conguel variety clearly associated with beaker, an occurrence which should not be unexpected when it is considered that the probable prototype in the South is there only immediately pre-beaker (p. 35.). There is no sure indication that any Breton megalith antedates the arrival of beakers in the peninsula, a conclusion which is supported by the Channel Islands' evidence¹⁸ and further by the recognized lateness of the Chassey influence. Nor must it be forgotten that Mr E. T. Leeds¹⁹ and others have shown the *vase support*, that most typical product of the Chassey influence, to be in some way the inspiration for the British Middle Bronze Age incense cup. It follows that in the Breton western ceramic with its typical carinated bowls, and in the Channel Islands equivalent, may be recognized the last certain descendant of our old western family.

Meanwhile, in Britain, Windmill Hill pottery shows the simple forms of the first of Mr Piggott's phases developing the carinated shapes, evolved lugs and use of ornament characteristic of the second. There is as yet no evidence, though it may well soon appear, to prove that the second great group of British Neolithic pottery, the Peterborough, was introduced before this later phase.

In its fullest extent the period under discussion saw the main series of impulses which diffused the 'Megalithic Idea' about the Atlantic and North Sea coasts. As we have already suggested this 'idea' seems to have imposed itself upon the different cultures against which it came in contact, with the result that varying responses to the

¹⁸ Kendrick, *Channel Islands*, p. 9.

¹⁹ *Archaeological Journal*, 1931, LXXXVIII, 52.

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stimulus gave rise to a number of distinct groups of megalithic architecture. Among the western groups the long barrows of Britain had a comparatively early beginning. They form an example which may be held to illustrate, as well as any, the original independence of this 'idea' from the cultures which it affected. It reached this country, in the writer's opinion, at a period corresponding with the late A1 or early A2 phase of Windmill Hill, shortly before or after the arrival of the Peterborough people. Certainly pottery representing both cultures occurs in long barrows. That the Peterborough is much more rarely found in this context is surely mainly due to the pre-eminently eastern distribution of the culture in contrast with that of the early long barrows. In support of this belief is the recent discovery of Peterborough ware in the only long barrow of the Lincolnshire group which has seen excavation. Any original connexion between the introduction of the Windmill Hill culture and megaliths into this country is incompatible with the main thesis of this paper. But admittedly we require more than existing British evidence alone if we are to deny it absolutely.

We have now treated of the three ceramic groups of the Chassey, Michelsberg and Breton cultures, which, despite external influence and internal development, still show their common descent from a general Western Culture. Let us conclude with some tentative suggestions concerning that culture of the Seine, Oise and Marne basins which is generally recognized to be of distinct origin from these three groups across which it cuts geographically. This SOM Culture has many distinctive features²⁰ but perhaps most distinctive of all is the typical vase form with everted rim, well marked shoulder, and splayed foot (FIG. 6 A). Now Dr Vogt of Zurich has recognized a close affinity between this ware and the pottery of the 'Middle Neolithic' of Vouga, which he would term Horgen after a site on the Lake of Zürich. It can be seen by comparing FIGS. 6 A and 6 B-C and *Arch. Journ.* LXXXVIII, page 47, how very real is this resemblance both in general form and in detail—particularly in the constructions of the bases. At the Neuchâtel stations this Middle Neolithic is stratified over the Early Neolithic from which it is separated by a sterile layer and from which it differs entirely both in the form and paste of its pottery. At Crufensee in northern Switzerland it occurs above the Michelsberg and below the 'schnurkeramik' levels, and at Utoqué, Lake Zurich, it is again found below *schnurkeramik*. The pottery evidence, striking though it is,

²⁰ *Archaeological Journal*, 1931, LXXXVIII, 49. Kendrick, *Axe Age*.

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would be insufficient alone to establish a connexion between the Horgen and SOM cultures, but there is one other point which further supports it. In the Marne Valley the Abbé Favret has detected the presence of pile-dwellings among the marshes bordering the river ; none has yet been excavated but they yield unmistakable sherds of SOM pottery. The origin of the two cultures and the nature of their relationship are alike obscure, nor is there space here to discuss the problems involved. The purpose of this brief reference is only to hint that the relationship is real ; further investigations alone can elucidate it.

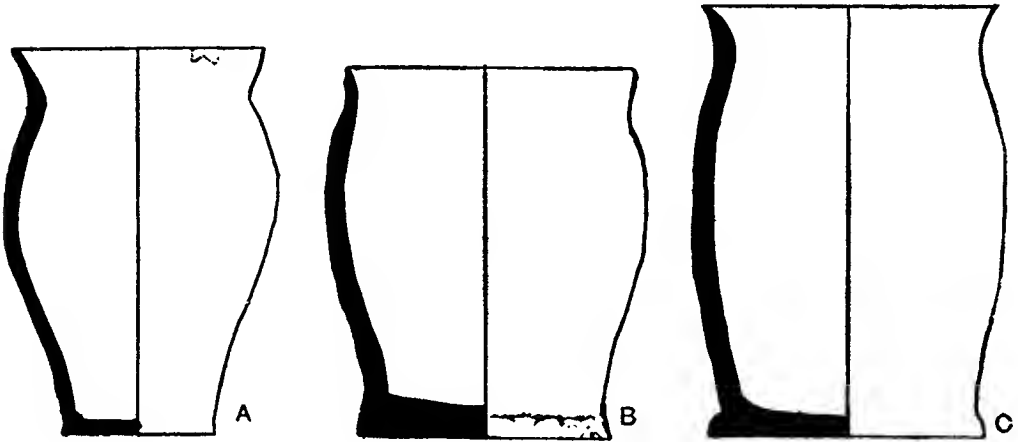


FIG. 6 (sketched)

- A, SOM VASE. ALLÉE COUVERTE DES MUREAUX-SEINE-ET-OISE
- B, MIDDLE NEOLITHIC, LAKE NEUCHÂTEL
- C, MIDDLE NEOLITHIC, LAKE OF ZÜRICH

Some attempt has already been made to establish a relative chronology for the various cultures here discussed. In order to effect this more securely we look longingly for some infallible touchstone to guide us ; there seems some hope that this may be found in Grand Pressigny flint-work. It is improbable that the exportation of this remarkable product of the Indre-et-Loire, in its most technically specialized form, should have lasted for any great length of time. Its presence or absence in a given culture must, then, help to establish its chronological relation with any other. In applying this test it seems significant that the products of the Grand Pressigny industry do not appear on Lake Neuchâtel until period IV of Vouga's classification, nor do they form part of the British Windmill Hill culture. On the

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other hand they occur at many Michelsberg sites and in both levels at Fort Harrouard²¹: They are often found in Breton megaliths, and are one of the recognized features of the SOM culture. Corroboration for the Grand Pressigny evidence can be sought from a study of the occurrence of perforated stone axes. These are not found until Vouga's second period on Neuchâtel nor in Britain before they appear in company with beakers, but they are well known in Michelsberg and SOM contexts. Thus both these channels supply evidence which harmonizes very agreeably with that which has gone before, yet our knowledge of either is sadly inadequate.

The table (page 41) will help to summarize our conclusions. We have postulated the existence in Western Europe of an early culture which was not wholly autochthonous, yet which owed its inspiration neither to the civilization of the Danube nor to such picturesque voyagers as the 'Children of the Sun'. This culture we have identified in South and East France, West Switzerland and Britain, but its limits cannot as yet be determined. Nor is it possible to do more than speculate as to its origin and lines of diffusion. General probability has suggested that the movement in our area was from the South of France up the Rhône valley to Switzerland, and thence to Britain by a route which certainly did not touch upon Brittany. We have supported the view that this early Western Culture was established on the West Swiss lakes during the first Danubian period.

We have claimed that upon this followed a period which saw the breaking up of cultural unity through geographical separation and diverse external influences. During this phase of differentiation a branch from the western stem showing Danubian influence extended down the Rhine as the Michelsberg culture. Contemporaneously an influence, manifested in more sophisticated pottery, spread from Southeast France northwards and then westwards, imposing itself upon its predecessor to form the Chassey culture. A belated impulse brought the Chassey further west, where it joined with other elements to form the familiar yet elaborate cultural pattern of Chalcolithic Brittany. Another element in this pattern was due to that SOM culture which cut across our area from Belgium to the Channel Islands, as an intruder alien to our western stock. Meanwhile, following upon a period of severe flooding, the West Swiss lakes were resettled by a people whose culture showed some continuity with their predecessors but

²¹ Abbé Philippe, *Cinq Années de Fouilles au Fort Harrouard*, 121.

CHRONOLOGICAL TABLE

Block Capitals indicate the Western Culture and its derivatives.

SOUTH FRANCE	EAST AND NORTH FRANCE	WEST ALPINE LAKES	BRITAIN	RHINE	PERIOD (DANUBE)
PLAIN WESTENKERAMIK (GROTTE de BIZE)	DECORATED WARE GROTTES I	VOUGA I	WINDMILL HILL, A1	Bandkeramik Rössen, etc.	Danube I 2600 B.C.
DECORATED WARE GROTTES I	CHASSEY I	MICHELSBERG	WINDMILL HILL, A11	MICHELSBERG	Danube II
Beakers : Grottes II	CHASSEY II Beakers	VOUGA II	Beakers	Corded Ware Beakers	2300 B.C.
	BRITTANY CARINATED M BOWLS CHASSEY II Beakers		L o Peterborough HILL, A11 B a r r o w s		Danube III
					1800 B.C.

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incorporated other quite new features. Their pottery has suggested a connexion with the SOM.

In Britain the culture we know by the name of Windmill Hill was, as we have seen, early established. The stratification of this classic site has enabled us to follow its development through two principal stages, the course of which saw the introduction of long barrows and the Peterborough culture into this country. Thereafter it was merged in those various movements of foreign immigration and influence which brought to an end our true Neolithic Age.

Notes on the Origins of Hiberno-Saxon Art

by A. W. CLAPHAM, F.S.A.

ONE of the outstanding problems of British archaeology and perhaps the most important of those which still await solution, is that involved in the revival of Celtic and La Tène motives in 7th century art. This question has been discussed in various recent publications by Dr Mahr, Mr Kendrick and Dr Wheeler. So far however there is no sign of ultimate agreement. With this question is bound up the origins of that Irish Christian art which had so spectacular a blooming in such objects as the Books of Durrow and Kells, the high crosses of Monasterbois and Clonmacnoise and the Tara brooch.

It is the purpose of the present notes to examine afresh the evidence of the origins of this Irish art, perhaps from a rather different angle, and if it be not possible to arrive at any definite conclusion, at any rate to bring forward some new factors bearing on the problem which have not so far been considered, and which may, I hope, serve to advance its ultimate solution.

In dealing with the subject I propose to abandon all preconceptions and to accept nothing as either Irish or English without definite evidence. As recently as 1924 Professor Brøndsted in dealing with the Lindisfarne Gospels declared it to be 'a purely Irish work in its ornamentation'. In this he only subscribed to the commonly received opinion which has been held so universally and so long that it emboldened Professor Macalister to jettison the direct evidence of the date of the same book because he could not otherwise place it in the sequence of Irish art. It will be our purpose on the other hand to enquire if indeed this and other works have a place at all in Irish art, and if so what that place may be, either as an exemplar or a copy.

The proposed line of enquiry will be two-fold, the first directed towards the evidence as to what constituted Irish art in the 7th century, and the second to what constituted English art at the same period. Of the two enquiries, the former will be the more difficult and indeed

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if we depended on Ireland alone, would be almost insoluble owing to the nearly complete absence of dated material of this period in the country. The companion study however of the material from the Celtic parts of Great Britain closely affected by Irish culture and of the Irish monastic colonies planted on the continent will assist us in arriving at some more definite conclusion.

Various explanations, as I have said, have been advanced for the revival of Celtic art-forms in England during the Dark Ages, the discussion centering mainly on the enamelled bowl-escutcheons with returning spiral ornament found generally in pagan Saxon graves. On the one side an attempt has been made to bridge the gap between early and late Celtic art and establish a continuity in the tradition. On the other side it has been postulated that the spirit of Celtic art required only favourable conditions to awake from its long sleep to new life. So far as I am aware however no attempt has been made to establish a continuous connexion, alike historical and artistic, between the art of the two ages, and yet such a link, I am persuaded, does actually exist.



FIG. 1.
SILVER PLAQUE,
NORRIE'S LAW,
FIFE
(Romilly Allen)

The origin, affinities and language of the Picts has provided the subject, in the past, of one of the most voluminous and acrimonious controversies ever waged between contending antiquaries, a controversy which now lives only in the pages of Sir Walter Scott's *Antiquary*. With this dispute, fortunately, we have nothing to do, and we are not concerned with the racial origin of the Picts but only with their art and with the recorded particulars of their migrations.

It is now generally agreed that the large number of stones to be found in almost all parts of Scotland, and distinguished by the use of a remarkable series of incised symbols, are to be connected with the Pictish race. They are to be found throughout the country save in the districts occupied by the Dalriadic Scots or Irish and the Strathclyde Britons, and the use of the symbols continued on far into the Christian period, being often found in conjunction with the Christian symbol.

It has been asserted indeed by certain authorities that these Pictish symbols are all of the Christian period and if this were so our whole argument would fall to the ground. Such a position is however quite untenable, the symbols themselves can have no possible Christian significance and their evolution after the general conversion of the country is

ORIGINS OF HIBERNO-SAXON ART

almost grotesquely improbable. In the rudest and presumably earliest monuments of the series the symbols are cut on the surfaces of unhewn blocks of stone and never occur in conjunction with the Christian symbol. These examples we may presume to date from before the general conversion of the country by the missionaries of Columba. This conclusion is strengthened by the occurrence of the same symbols on metal objects (FIG. 1) from Norrie's Law (Fifeshire), found in conjunction with coins extending down to the Emperor Tiberius II (578-82).

We may thus feel assured that the Pictish symbols were in use in their developed form, independently of any influence from Ireland,

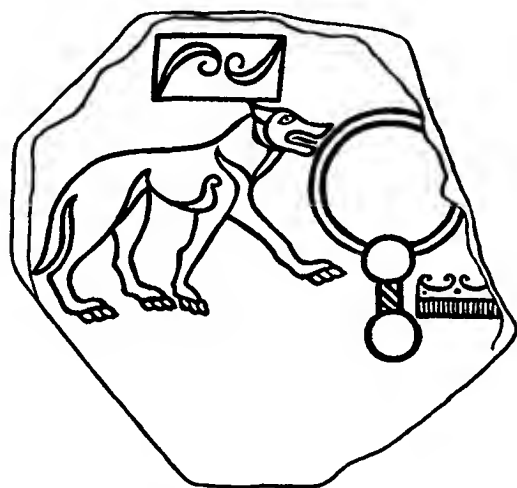


FIG. 2. SYMBOL-STONE, NEWBIGGING LESLIE, ABERDEEN
(Romilly Allen)

especially as they do not occur in the then purely Irish district of Argyll.

Let us now examine the forms and decoration of these symbols. In regard to the forms, two only need concern us, but both of these are of the most signal importance—the mirror symbol and the so-called spectacle symbol. The first of these is in form an exact reproduction of the well-known metal mirrors (FIG. 2) of La Tène art, and so far as I know this form is unknown in the mirrors of any other age or culture. The spectacle-symbol likewise would appear to be taken direct from the central enrichment of the La Tène shield, such as that found in the Witham. It would seem difficult to find more convincing proof of the continuity of La Tène art amongst the Picts than the survival of

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these symbols, which must have been first adopted by people familiar with the objects represented. That this was not a survival of mere form only is indicated by the linear decoration of these and other symbols of the Pictish series. Many of these (plate, FIG. 3) display the sweeping curves of La Tène art and though the fully developed trumpet-spiral of later Celtic art does not appear in its developed state its embryonic forms are frequently apparent.

Let us now examine the historical aspect of the question and consider how the survival of this Pictish art may have affected the revival of Celtic art in Dark-Age England. The operations of the Picts against the tottering structure of Roman power in Britain have been familiar to all of us from our early childhood, but it is with the later rather than the earlier manifestations of this activity that we are immediately concerned. Apart from the sweeping but transitory raids of the 4th century there is evidence of greater significance in the 5th century. In the record of the mission of St. Germanus to Britain in 429-30 we find him leading the harassed Britons to victory (the Hallelujah Victory) over the combined and presumably allied forces of the Picts and Saxons. That some of these Picts settled in the harried and depopulated areas is in the highest degree probable, and a slight but possibly significant indication of the widespread extent of this settlement is provided by an entry in the Saxon Chronicle. Under the year 508 it is recorded that Cerdic and Cynric slew a British king named Natan leod and slew five thousand men with him. It is further stated that he gave his name to Netley (identified by Mr O. G. S. Crawford with Netley Marsh near the mouth of the Test) in Hampshire. The significance of this entry lies in the fact that the name of the king would seem to be Pictish and indeed occurs in the traditional list of kings in the Pictish Chronicle.

We may thus perhaps assume that of the three chief troublers of Romano-British peace, the Scots (or Irish) raided the western shores and sometimes settled there, the Saxons harried the eastern coast, leaving to the Picts a broad pathway through the heart of England, where they pillaged or settled in the open country either alone or in conjunction with the Saxons. The ultimate triumph of the latter and the Saxon sources of our later history, have almost but not quite obliterated all traces of the Picts and only an unexplained element in the art of the early Saxons would lead one to recall the facts of their incursions and possible settlement.

Let us now apply these particulars to the problem in hand and for this purpose we cannot do better than study Mr Kendrick's distribution-

ORIGINS OF HIBERNO-SAXON ART

map* of the Celtic bowl-scutcheons, found in various parts of England and generally in connexion with pagan Saxon burials. We see from this map that the area covered by this distribution is roughly the eastern and central parts of England and leaves untouched the unconquered Celtic districts of the west and southwest. This alone would seem to indicate, very forcibly, that the untouched Celtic population had nothing to do with the matter and the motive is so foreign to the Teutonic art of the Saxons that it is impossible to believe that they were in any way personally responsible for its revival. The district covered by the examples, on the other hand, does cover the area reasonably assigned to the operations of the Picts and the combined Picts and Saxons. We have thus, I suggest, all the required elements for the solution of the puzzle—the survival of a form of La Tène art amongst a people of this island at the required date—the opportunity for the introduction of that art into the very districts in which its (rather later) examples are found, and finally a native Celtic subsoil (in the submerged Britons) in which this re-introduced art had every opportunity of springing to new life.

It should be noted however that no example of actual Pictish symbols has ever been found south of the Border and the art of the bowl-scutcheons is a developed form which is not found in Pictish art. We must thus assign to the Picts the part of carriers only, of sowers of a seed which came to a development in the Celtic sub-soil of Britain itself.

One other point before we leave the Picts. In every way the most remarkable product of Pictish art is the extraordinarily able and naturalistic representation of animal-forms which alone would serve to mark the race as possessing other elements than Celtic. It may be that in this also Pictish traditions had some influence on later Anglian art. Neither the Saxons nor the Celts had of themselves any capacity for naturalistic representation, and while the Anglo-Saxon carvers had no doubt some training from imported artists from the Mediterranean, yet their rapid acquirement of a facility for rendering animal-forms argues some better groundwork than the conventionalized art which was their native inheritance.

Let us turn now to the other side of the question and see if it is possible to ascertain what actually did constitute Irish art before the contact of the Irish with Anglian culture—that is to say before the middle of the 7th century.

* ANTIQUITY, 1932, VI, 180.

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In this connexion, besides Ireland itself, such districts as the Scottish Dalriada and the Isle of Man must be included as deriving their culture direct from Ireland, as well as those continental monastic houses founded by St. Columban and his immediate followers whose personnel was continually recruited from Ireland itself. In addition certain parts of Wales and southwest Britain were strongly influenced from Ireland and may be expected to show some trace of Irish culture.

To take Ireland itself first ; here we are at once confronted with an utter lack of definitely dated material and we can only consider those objects which appear to be the earliest in the later series. In stone the only ornamented object which has any claim to be assigned to this early period is the rough block formerly at Mullaghmast and now

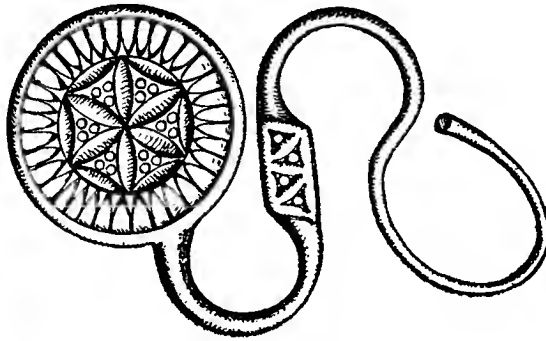


FIG. 8. BRONZE LATCHET, NEWRY
(*British Museum Anglo-Saxon Guide*)

in the National Museum. This is decorated with a design of primitive returning spirals which certainly belong to Celtic art. It is however quite uncertain if this stone does not belong to the La Tène period itself, in which case it has nothing to do with our argument. In addition there are a number of crude totem figures of extremely barbaric form, which again do not assist our argument one way or the other. At the head of the series of standing-crosses however are a few which Middle Henry would assign, we think with too much temerity, to the 7th century. Amongst these are two at Carndonagh (Donegal) and Templemore (Tipperary) which are decorated in a style which is never again represented in the long series of later crosses, for which Ireland is famous. This decoration takes the form of a simple circle enclosing radiating petals (plate, FIG. 5) which we will call the marigold



FIG. 3. SYMBOL-STONE,
DUNNICHEN, FORFAR
(Romilly Allen)

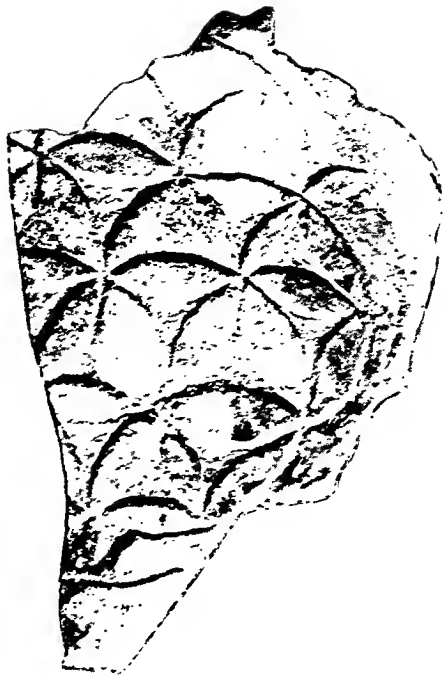


FIG. 4. GRAVE-SLAB FROM CLONMACNOISE
(Mahr, *Christian Art in Ireland*)



FIG. 5. STILE OF CARNDONAGH
WIST TACE
(Francis Henry)



FIG. 6. SLAB, CLADII BHILI
ELLARY, ARGYLL
(Romilly Allen)



FIG. 7. MARIGOLD ORNAMENT,
MISSALL, GOTHICUM
(E. H. Zimmermann)

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pattern. The same pattern appears on a latchet from Newry¹ (FIG. 8), on a tomb-slab (plate, FIG. 4) at Clonmacnoise² (founded 547) and perhaps very occasionally elsewhere.

We find the same marigold on two slabs at Kirk Maughold (Isle of Man), one being on the inscribed slab (FIG. 9) of a bishop of the island, associated with a XP which hardly permits it to be assigned to a later date than the 7th century at latest, for the XP monogram does not occur in any save the earliest Christian monuments in these islands and is almost unknown in Anglian art.

The Scottish Dalriada has provided a considerable number of Christian stone memorials, and of these all the enriched examples, with one exception, are of demonstrably late date and have never been claimed by any author as approaching by several centuries the age of Columba. They are however preceded by a large number of stones cut with a simple cross, which presumably represent the earlier memorials of the Columban church and by a single slab (plate, FIG. 6) with marigold enrichment from Ellary, Argyllshire.

The same simple cross-forms are represented on the earlier slabs in the long series from Clonmacnoise, and can be paralleled in a large number of isolated cases in Wales and Cornwall, where they are not superseded by the enriched standing-cross until a period perhaps as late as the 10th century. They are significantly infrequent in the early Northumbrian sites, where their type was rapidly superseded by more enriched forms.

In certain definite places it is thus demonstrable that in stone-cutting at least, Irish influence, direct or indirect, produced no trace of Celtic art until a period when its component forms had long passed



FIG. 9. INSCRIBED STONE, MAUGHOLD,
ISLE OF MAN
(Kermode and Herdman, *Manks Antiquities*)

¹ *British Museum Anglo-Saxon Guide* 1923, fig. 171.

² A. Mahr, *Christian Art in Ancient Ireland*, I, plate 43 (8).

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their prime in England. In Ireland itself the earliest date now assigned to even the simplest of the enriched crosses does not go back before the middle of the 7th century and this dating itself is a mere matter of opinion and is supported by no evidence.

The survival in isolated cases of decoration of the marigold type on stone monuments of early date only, is, we think, of some significance as it indicates that it belongs to an earlier age and was entirely superseded by the forms of Celtic art in which it found no place. It was furthermore a type of ornament peculiarly adapted for cutting in wood, from the chip-carving of which it was ultimately derived.

This form of decoration seems to have first made its appearance in the Roman provinces under the later Empire and is generally considered to be of barbaric origin. Its examples are scattered pretty widely, but there can be no doubt that the district in which it obtained the greatest favour was southern France and Spain. So much is this the case that it may be looked on as the most characteristic feature of Visigothic art. All over Spain, at León (FIG. 10), Merida, Toledo, Cordova (FIG. 11) and Lisbon it occurs. In France it is perhaps less frequent but occasional examples occur from Poitiers southwards. All or nearly all these examples are safely dated between the 4th and the 7th centuries.

It may be assumed that the beginning of Irish learning took its rise from the migration of the alumni of Bordeaux and other cities to Ireland, recorded by an anonymous author as occurring early in the 5th century. With them was perhaps introduced that Christianity which existed in Ireland before the arrival of St. Patrick. The existence of this same South Gaulish and Spanish influence has recently been pointed out in the earliest Irish Penitential³, that of Vinnian, dating from the middle of the 6th century.

We have thus a fully attested connexion between Ireland and southern France in the 5th century and the traditional connexion with Spain is confirmed by the occurrence on the stele at Fahan of a Greek formula approved by the Council of Toledo in 633. What then is more probable than that the chip-carved forms of decoration popular in these countries at the time should have been transmitted to Ireland and adopted by the Irish themselves. The evidence admittedly is slender, but it is difficult to account for the isolated examples in Ireland and lands under Irish influence, on any other hypothesis. The only alternative seems to be to admit that for some centuries before the latter part of the 7th century the Irish produced no decoration of any

³ *Speculum*, VIII, p. 492.

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sort. The evidence from metal objects is equally negative, for no decorated metalwork can be or has been assigned with any authority to a period earlier than the end of the 7th century, with the solitary exception of an enamelled scutcheon of the English type, which may be either an importation or loot.

In the department of manuscripts however some further and very striking evidence is available if of an equally negative order. The great continental monasteries of the Irish missionary Columban and



FIG. 10. STELE, LEÓN MUSEUM
(A. Haupt)

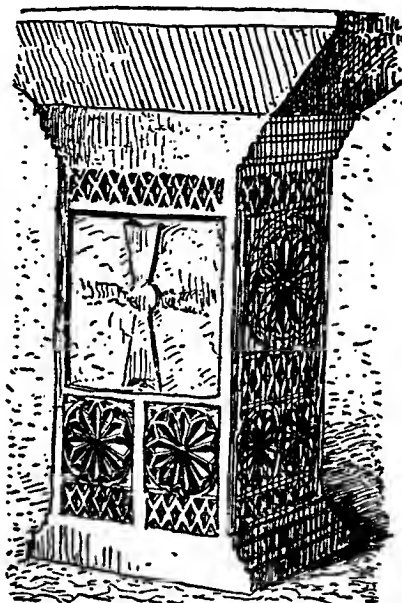


FIG. 11. STOUP (?) AT CORDOVA
(A. Haupt)

his followers, Luxeuil, Bobbio and the rest, founded round about the year 600 and celebrated as places of learning, have bequeathed a few manuscripts which may with confidence be assigned to the first century of their existence. Here, if anywhere, we should expect to find evidence of the early beginnings of Hibernian art, as the art of drawing on a flat surface is the necessary preliminary for any but the very crudest carvings on stone or wood.

It is with much diffidence that I offer any suggestions on this branch of the subject as it is one on which I am in no way competent

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to speak. I shall in consequence base my remarks on the conclusions arrived at by Dr Zimmermann, whose survey⁴ of pre-Carolingian manuscripts is the most careful and comprehensive which has yet appeared. In his first volume he illustrates a long series of manuscripts which he assigns to the school of Luxeuil and of which the earliest, in the Morgan Library, is definitely assigned to the date 669. A number of others are placed by the author in the second half of the 7th century and of these I would call particular attention to the *Missale Gothicum* at the Vatican (plate, FIG. 7).

Throughout the whole of these manuscripts, which provide a considerable corpus of decorative forms, there is no trace of anything remotely resembling the typical ornaments of Irish Christian art. The forms are exclusively those elsewhere in use in Western Europe in the



FIG. 12. ESCUTCHEONS, LULLINGSTONE, BARRINGTON AND LOWBURY

7th and earlier centuries, and are mostly of late Roman, early Christian, Merovingian and Visigothic origin. We are in fact in the presence of an art which is a fuller expression of that same art which I have suggested was introduced into Ireland by the refugees of southern Gaul in the beginning of the 5th century. Thus we find numerous examples of what I have called the Marigold ornament (plate, FIG. 7) and one example of the Marigold diaper (in the *Missale Gothicum*) which is identical with that on the slab at Clonmacnoise.

It is not however on the positive but rather on the negative side, that the evidence from these Continental manuscripts is of the greatest value. It is difficult if not impossible to believe that had Irish Christian art existed in the earlier part of the 7th century it should have left absolutely no trace in the decorations of manuscripts immediately or

⁴ E. H. Zimmermann, *Vorkarolingische Miniaturen*, (Berlin, 1916).

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more remotely connected with a monastery such as Luxeuil, founded and originally colonized by Irish missionary monks.

The same entire absence of Irish motives is also to be found in the earliest manuscripts connected with the abbey of Bobbio.

If it be urged that this is due to the early failure of Irish influence in these monasteries, I would point out that not only is this not borne out by the known historical facts, but that once the end of the 7th century is passed the Irish and semi-Irish monasteries of the continent of Europe become almost flooded with products of that very Irish art which is entirely absent from the works of the previous century.



FIG. 13. CARVED STONE, SOUTH KYME CHURCH, LINGS.
(*Antiquaries Journal*)

If these facts be admitted, I submit that they form a very strong if not conclusive argument that Irish Christian art was unknown in Ireland before the close of the 7th century.

Let us now consider the component parts which make up the groundwork of Anglian art at the end of the 7th century, neglecting those features, obviously introduced from the Mediterranean, such as the true and ivy vine-scroll with the beasts and birds which climb and perch in its branches. Let us take for example the Lindisfarne Gospels, (dated to c. 710) as the leading example of so-called Hiberno-Saxon art, and consider in turn the various decorative forms which enrich it. Apart from the figures of the Evangelists themselves, which are obviously of Classical

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inspiration, no feature of this book displays the southern art of the high-crosses of the same age which only appear in English illumination at a rather later date. The reason for this is obscure, for one cannot always explain why a certain form of decoration is in free use in one medium while it is almost entirely absent from another of the same age. The fact remains that the vine-scroll of contemporary stonework does not appear at all in the Lindisfarne book while the trumpet-spirals of the book appear only once in the stonework of that date.

The decorative motives of the book may be divided into geometrical



FIG. 14. SWORD POMMEL, CRUNDALE KENT
(*Aberg, Anglo-Saxons*)



FIG. 15. SILVER DISK, CAENBY, LINCS
(*British Museum Anglo-Saxon Guide*)



FIG. 16. FRIEZE OF ANIMALS, BOOK OF DURROW
(*British Museum Anglo-Saxon Guide*)

and animal. The chief geometrical motives are the following: (a) trumpet-spiral, (b) interlacement, and (c) diagonal fret, while the animal forms are confined to (a) the bird or cormorant, and (b) the beast or whippet in various forms. The trumpet-spiral, as we have seen, had been at home in England at least one century and perhaps two before the book was written. The bowl-scutcheons (FIG. 12) of pagan Saxon burials bear it in almost identical form, and the same form is reproduced on a single carved stone from South Kyme (FIG. 13) in Lincolnshire. There can be no question of the priority in date of the bowl-scutcheons over any datable example of the motive in purely Irish art, and there is consequently not the slightest reason for assigning an Irish origin to it.

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The Interlacement was brought, in the Lindisfarne book, to a degree of complexity which was never subsequently surpassed. It appears in very similar form on the contemporary and earlier high-crosses of Northumbria. The ultimate origin of this interlacement does not greatly concern us ; the important fact is that it had been adopted into the Teutonic art of the Migration period and is to be seen in quite a complex form on pagan Burgundian buckles from Charnay or on the mounts of the pagan Saxon period from Caenby, Lincs. It would be difficult if not impossible to find the motive in Irish art at a period approaching this age, and there is consequently no reason to assume that the artist of the Lindisfarne book drew from any but

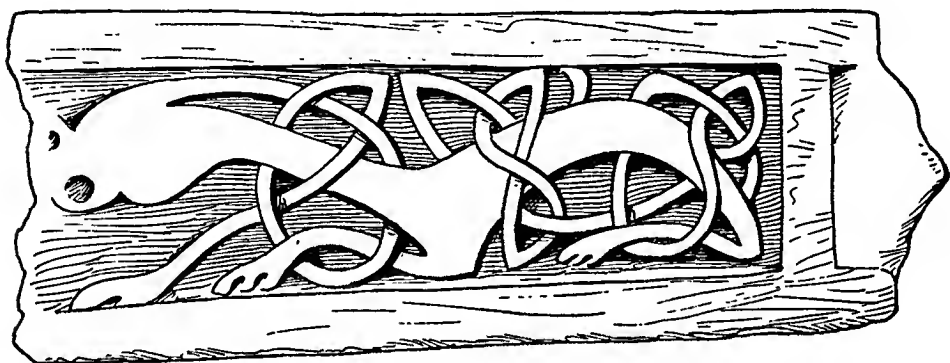


FIG. 17. CROSS-SHAFT, LINDISFARNE
(*Archaeologia*)

local originals for this form of decoration. The diagonal fret is of more uncertain origin, but in any case the fret is a Classical and not a Celtic form and in consequence hardly concerns the present argument. In stone it appears in some of the earliest of the Northumbrian crosses, *e.g.*, Abercorn (681-5), probably Lindisfarne and Northallerton, to which any appearance of the form in Ireland is almost certainly subsequent.

Turning now to the zoomorphic forms. The bird is readily recognizable from its large eye and hooked beak as belonging to the gull or bird of prey type. Its position in northern Teutonic art has been fully established whether or not it be a borrowing from the Scythians. That it passed into Celtic art by way of the Anglo-Saxons can hardly be disputed. The beast is firmly established in Anglo-Saxon art in the pagan period, *e.g.*, at Crundale Down (FIG. 14)

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and Caenby (FIG. 15), and appears also on a cross-shaft (FIG. 17) at Lindisfarne itself. In the Lindisfarne book it is sometimes rendered in an entirely naturalistic form closely resembling the whippet, but it is essentially the same beast which appears conventionalized, contorted and provided with a long snout with which it seizes the back of its neighbour as in the Book of Durrow (FIG. 16). This beast becomes the ribbon-beast when rendered as a symmetrical design.

What then was the art-situation in Northumbria in the second half of the 7th century? In broad outline, we find two largely distinct currents of development running side by side and possessing only a certain number of motives in common. Thus the art of the stone carver is essentially distinct from that of the illuminator, the one avoiding some of the motives which are most favoured by the other. This demands an explanation, which I think can be supplied by a consideration of the circumstances in which both forms of art were produced. We have seen that all the components of the geometrical and conventional ornament were already available in Anglo-Saxon England, and the Mediterranean features of the figure drawing, vine-scroll and animal ornament were introduced as a consequence of the Italian mission of St. Theodore and perhaps even earlier. We may further assume as certain, that the Northumbrian stone-carvers were trained by Mediterranean masters, and rapidly acquired such a proficiency in the art as to render their work an unparalleled performance for its age. No one doubts on the other hand that the learned Irish missionaries brought with them proficient scribes and that the Northumbrian scribes were trained in turn by them.

As a result we find the stone-carver choosing from the common stock the southern motives of his masters, together with certain other features such as interlacement, which had long been familiar to him. The illuminator on the other hand, either Irish himself or Irish-trained, chooses those forms which are akin to his Celtic instincts, and neglects the southern forms whose naturalism was repugnant to him. In this connexion it may be noted that apart from the evidence of the Colophon to the Book of Lindisfarne it is obvious that its scribe must have been a Northumbrian, for while he kept religiously within the accepted corpus of the manuscript motives of ornament, no Celt could conceivably have produced the figures of the Evangelists which are directly copied from sub-Classical originals.

We may thus imagine the Irish missionaries from Northumbria returning to Iona and Ireland and carrying with them the developed

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art of the manuscripts, which they had in some sort evolved from its *disjecta membra* in northern England. Perhaps its first surviving fruit was the Book of Durrow, which one author has tentatively assigned to Iona itself. In any case all the available evidence goes to show that the Irish came to Northumbria without any form of Celtic art-expression and left it capable of producing the highest forms of Irish Christian Art.

Let us finally attempt to sum up the conclusions reached. Celtic art, so far as the evidence goes, had not survived the period from the 2nd to the end of the 4th century of our era in any part of the British Islands save in Caledonia, where the Picts had preserved some of the forms and features of La Tène art. The raids, invasions and settlement in southern Britain by the Picts in the 4th and 5th centuries provided an occasion for the communication of this art once again to the Romanized Celts of our own country, and led to a revival of certain Celtic forms which make their earliest appearance in a pagan Saxon context. The conversion of Northumbria by Irish missionaries first brought the Irish, already a literary nation, into contact with these revived Celtic forms and also with other motives, of Teutonic and more remote origin, which were then current amongst the Anglo-Saxons. In the hands of expert Irish scribes the art of the Book of Durrow and the Lindisfarne Gospels was produced, the scribes choosing only those current motives which appealed to their Celtic sense and leaving untouched those which appear only in stone-carving and other media. The continual communication between the early church of Northumbria and Ireland, either directly or via Iona, rapidly transmitted this new-found art to that country, and its growth was no doubt greatly furthered by the return home of many of the Irish ecclesiastics after their defeat at the Council of Whitby in 664.

There is not only no evidence to show that Irish Christian Art so-called existed at all before the contact with Northumbria but there is some evidence to show that its place was taken by a form of decoration borrowed from southern France and Spain, while the manuscripts of the Irish monasteries on the Continent which can be reasonably dated to the 7th century show only this decoration or forms borrowed from the country in which they were planted.

We must thus conclude that Hiberno-Saxon art was in origin in no sense Irish but that the Irish perhaps welded its component parts into one style; that this welding probably took place in Northumbria in the second half of the 7th century, and that it was transmitted thence to Ireland and from Ireland over half Europe.

A Scandinavian Cremation-Ceremony

Translated from the Arabic of Ahmad bin Fudhlan by Charis Waddy, sometime honorary scholar, Lady Margaret Hall, Oxford, with introductory note by H. L. Lorimer, Somerville College, Oxford.

NOTE BY MISS LORIMER

MANY years ago, when searching for accounts of cremations which might illustrate those described by Homer, I came across a paper by the late Dr Joseph Anderson, entitled ' Ceremonies at the Incremation of a Norse Chief ', read to the Society of Antiquaries of Scotland in 1872.* A large part of it consists of a translation, apparently the only one in English, of the narrative of an Arab, Ahmad bin Fudhlan, who early in the 10th century visited a Scandinavian settlement on the Volga and there witnessed the cremation of the body of a chief. Though it attracted much attention at the time and is of great intrinsic interest, Anderson's paper is now virtually unknown, and except for Orientalists the important Arab document is available only in Holmboe's Danish version, from which Anderson made his translation, and in Fraehn's German translation of 1823. As Anderson's translation was not made from the Arabic, was slightly expurgated, and is not very accessible, it seems worth while to publish a new translation made from the original text by Miss Charis Waddy. This was originally intended to form an appendix to an article on cremation in the Aegaeon area and in Homer which had appeared in the *Journal of Hellenic Studies*,¹ but proved to be too long. I am grateful for the opportunity of publishing it, almost simultaneously, in *ANTIQUITY*, for it supports the point which I sought to establish, *viz.* : that for all the glamour thrown over it by Homer, cremation of the dead is naturally associated with a somewhat barbaric culture, and in the case of the Greeks was mainly practised at an early date and by the more backward members of the race.²

The points of resemblance between the cremation of the Rus chief and those of Patroklos and other heroes as described by Homer, will at once strike the classical reader. Besides food and drink and the

* Printed in the Society's *Proceedings* IX, pt. 2, 518-26.

¹ *Pulvis et Umbra*, J.H.S., 1933, LIII, 161ff. ² See p. 101 *post*.

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garments and weapons of the dead man, only the bodies of living things, whose spirits can accompany him, are burned with him. A tumulus is raised over the site of the pyre and the equivalent of a stele placed on the top, a type of monument alluded to in the Iliad. In one point Homer is more advanced; human sacrifice appears only at the funeral of Patroklos, the victims are combatants, prisoners of war, and the poet gets over the horrid and doubtless traditional³ business in as few words as possible. He can introduce it, not because it was congenial to Greek sentiment, but because it marks as nothing else could the frenzy of Achilles' remorse. No Greek opinion of which we have cognizance would have tolerated the slaughter of Ἰφίτις ἐνέστανος, captive and alien though she were.

NOTE BY TRANSLATOR

Ahmad bin Fudhlan was sent by the Caliph Muqtadir in the year 921 as envoy to the 'King of the Slavs', or of the town of Bulghar on the Volga, to instruct him in Islamic law, etc. On his return to Baghdad in 922, he wrote a treatise (*risala*), which described all that he saw, but which is lost except for the extracts incorporated by Yaqut (d. 1229), in his Geographical Dictionary (*Yacut's Geographisches Wörterbuch*, ed. Wuestenfeld, Leipzig, 1866-73, 6 vols.). In the course of his journey Ahmad visited some 'Russians', who, he says, had come with their merchandise and settled on the Volga (Wuestenfeld, II, 834). They were in fact Scandinavians (*Rus*) who had established themselves on the Volga and carried on a trade in furs and slaves with Constantinople, which in turn supplied them with gold and silver ornaments, silks and other articles of luxury. His account of them is given by Yaqut in his article on the *Rus*, and part of it is translated here. (Wuestenfeld, II, 837-40. See also Fraehn, *Ibn Foszlans und anderer Araber Berichte über die Russen älterer Zeit*. Text und übersetzung, etc., 1823).

TRANSLATION

I was told that when their chieftains died, they used to do certain things with them, the least of which was to burn them. I wished that I could get information about this, until I heard of the death of one of their prominent men. They put him in his grave and made a roof over him for ten days, until they had finished cutting out and sewing garments for him.

³ There is some evidence for human sacrifice at funerals in prehistoric Greece, though not in association with cremation. See Persson, *The Royal Tombs at Dendra*, 68, 69 and Blegen, *Zygoriries*, 55-7.

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What they do for a poor man is to make a small boat, put him into it, and burn it. In the case of a rich man, they collect his money and divide it into three equal parts. One third is for his family, with one third they cut out garments for him, and with one third they buy liquor for them to drink on the day when his maidservant kills herself and is burnt with her master. They are much addicted to wine, which they drink night and day, and often one of them dies with a cup in his hand.

When one of their chieftains dies, his family say to his menservants and maidservants, 'Which of you will die with him?' One of them replies, 'I will'. [When anyone has said this, it cannot be taken back, and no one who wishes to withdraw is allowed to do so. It is usually maidservants who make the offer.] When the man I mentioned died, they said to his maidservants, 'Who will die with him?' One of them replied, 'I will'. They set two maidservants to guard her, and be with her wherever she went. These even sometimes washed her feet with their hands. They then began seeing to the dead man's concerns, and making the necessary preparations. The girl meanwhile spent every day drinking and singing, happy and cheerful.

When the day arrived on which he and the girl were to be burnt, I came to the river on which was the boat for him. It had been drawn up out of the water, and four supports had been made for it of *khalanj*⁴ and other wood. There were set round it wooden figures like tall human beings. It was then drawn further up and set on those timbers. They began going up and down, saying something I could not understand. The dead man was still in his grave, they had not taken him out. They next brought a bier, and put it on the boat, and covered it with quilts and cushions of *Rumi*⁵ satin. Then came an old woman, whom they called the 'angel of death', and she spread these on the bier I mentioned, having superintended the sewing and preparations. She had the task of putting the slave girls to death. I noticed that she was dusky, hale, strongly built and austere.

When they came to his grave, they cleared away the earth from the wood, then cleared away the wood, and took him out, in the covering in which he died. I saw that he had gone black, because of the cold climate of the country. They had put liquor and fruit and a lute by him in his grave, and they took all this out. The corpse had in no way

⁴ A kind of wood out of which bowls were made. Unidentified.

⁵ *i.e.*, Romaic=Byzantine.

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altered, apart from the colour. They then dressed him in trousers, gaiters, shoes, a tunic, a satin mantle (*khaftan*), with gold buttons, and they put on his head a cap of sable [and] satin. They then carried him along and brought him into the tent which was on the boat, sat him on the quilt, and propped him up with the cushions.

They now brought liquor, fruit, and herbs and put them by him, then they brought bread, meat, and onions, and threw them down in front of him. They brought a dog, cut it in half, and threw it into the boat, then brought all his weapons, and put them by his side. After that they took two beasts of burden, drove them along until they sweated, then cut them up with swords and threw their flesh into the boat. Then they brought two cows, cut them up also, and threw them into the boat. Next they produced a cock and hen, killed them, and threw them into the boat. The girl who was to be killed, meanwhile, was going up and down, entering one tent after another, and one man after another had intercourse with her. Each one said to her, 'Tell your master that I only do this for love of him'.

When the time of the afternoon prayer of the Friday arrived, they brought the girl to something they had made, which resembled the frame of a door. She put her feet on the palms of the men there, and looked over the frame. She said what she had to say, and they lowered her. Then they lifted her up a second time, she did the same again, and they lowered her. They then lifted her up a third time, and she did the same again, after which they gave her a hen and she cut off its head and threw it away. They took the hen and threw it into the boat. I asked the interpreter what she was doing, and he replied, 'The first time she said, "Behold, I see my father and mother". The second time she said, "Behold, I see all my dead relations seated". The third time she said, "Behold, I see my master seated in Paradise, and Paradise is green and fair, and with him are men and servants. He is calling me, send me to him"'.

They passed along with her to the boat. She took off two bracelets which she had on, and gave them to the old woman who was called the 'angel of death', and who was to kill her. Then she took off two anklets she was wearing, and gave them to the two girls who were in attendance on her, and who were the daughters of the 'angel of death'. Then they raised her on to the boat, but did not take her into the tent. Some men now came along, bringing shields and pieces of wood. They gave her a cup of liquor, and she sang over it and drank it. The interpreter said to me, 'That is her farewell to her companions'.

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Another cup was given to her, and she took it and sang for a long time, while the old woman urged her to drink it and to enter the tent in which was her master. I saw that she had become bewildered and wished to enter the tent. She put her head between the tent and the boat, and the old woman took hold of her head and made her enter the tent, and went in with her.

Then the men began beating the shields with the pieces of wood, so that the sound of her screams should not be heard, and the other girls be afraid and not wish to die with their masters. Six men then entered the tent, and all of them had intercourse with her. They then made her lie down by the side of her dead master, and two took hold of her hands and two her feet. The old woman called the 'angel of death' put a rope done into a noose round her neck, and gave it to two men to pull. She came forward with a large broad-bladed knife, and began thrusting it in and out between the girl's ribs in place after place, while the two men strangled her until she died.

Then the nearest relative of the dead man came and took a piece of wood and set it on fire. Naked, he walked backwards towards the boat, the piece of wood in one hand, and the other on his buttock, until he had set on fire the wood that they had arranged under the boat after they had put the dead slave girl by the side of her master. Then people came with wood and firewood. Each man had a piece of wood, the end of which he had set alight, to put it into the wood which was under the boat, so that the fire should catch the wood, then the boat, then the tent and the man and the girl and everything in it. At this moment, an awe-inspiring gale got up, so that the flames of the fire grew stronger and its blaze fiercer. By my side was a *Rusi*, and I heard him talking to the interpreter who was by him. I asked what the other was saying, and the interpreter replied, 'He says that you Arabs are stupid because you take your dearest and most honourable men and cast them into the dust, so that creeping things and worms eat them. We burn them with fire in a twinkling and they enter Paradise the very same hour'. Then he laughed heartily, and said, 'Out of love for him, his Lord has sent the wind to take him away this very hour'. And in truth, an hour had not passed before the boat, the wood, the dead man and the girl were all burnt to ashes.

Then they built something like a mound over the place where the boat had been drawn up out of the river. They set up in the middle of it a large piece of *khalanj* wood, wrote on it the names of the man and the king of the *Rus* and went away.

The Mountain of 'Uweinat

by W. B. K. SHAW

Wellcome Museum Expedition, Gaza, Palestine

'GENTLY undulating gravel plain', 'limitless expanse of rolling sand', 'succession of low sandstone ridges'—such phrases are common in any book of desert travel, for most of the desert is featureless almost to monotony were it not that its very monotony has a charm which, for those who have felt it, no other landscape can rival. In the desert anything unusual attracts, a patch of rare shade, a hollow with a few dried bushes, a conspicuous hill,—one is drawn to each, sometimes to find the remains of some earlier and less fortunate visitor. So a 6000-foot mountain set down in the heart of one of the worst, one of the most 'howling', deserts in the world merits and receives its share of attention.

The intersection of the 25th meridian east and the 22nd parallel north, where Egyptian, Italian, French and Sudanese territory meets, is about the middle of the mountain mass of 'Uweinat. A few miles south of this point the summit rises to 6217 feet above sea-level and around it the mountain stretches out, 30 miles across from east to west and 25 from north to south. 'Uweinat—the little springs—takes its name from the diminutive of 'ain, the Arabic for a spring, and its name reflects its importance as a water-point isolated on all sides by barren deserts. The nearest known water to its little group of springs is at Kufara Oasis, 170 miles away to the northwest.

That 'Uweinat was known to Stone Age man is clear from the rock pictures he left behind him; it was visited by the Majabri and Bornawi caravaneers of the early 19th century, but the credit for being the first civilized traveller to 'put the place on the map' is due to Sir Ahmed Bey Hassanein, who reached 'Uweinat from Kufara by camel in 1923 on his great journey from the Mediterranean to Darfur. Though if Crete be a civilized country the first such traveller to see 'Uweinat may have been a Cretan who, so Prince Kemal el Din

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records,¹ accompanied a caravan sent in 1916 by Sultan Ali Dinar of Darfur, then engaged in hostilities with the Sudan Government, by way of Merga and 'Uweinat to Kufara to buy arms from the Senussi there.

Mohammed Abd el Karim called Sabun, sultan of Wadai from 1804-15, was an energetic and progressive ruler ; M. Fulgence Fresnel, the consular representative of France at Jeddah in the middle 'forties, was a keen geographer. The former was the first to realize the importance to his kingdom of a direct outlet to the Mediterranean ; to the latter we are indebted for an account of the finding of such a route.²

At the beginning of the 19th century the two usual trade routes from Wadai to the Mediterranean were through Tibesti to the Fezzan and Tripoli, or by way of Darfur and the Arba'in Road to Egypt. Both these had their disadvantages. The former suffered from the raids of the Tibesti tribes, and the latter from tolls exacted by the Egyptian Government. Sabun was anxious to find a direct route northwards from Wadai and sent a caravan towards the Egyptian oasis of Dakhla. But the guides lost their way and the whole party perished in the deserts northwest of Darfur. No further attempts were made until 1809 or 1810, when a Majabri Arab from Jalo, by name Shehaymah, arrived at Sabun's court at Wara and offered to find a direct route from Wadai to Augila and on to Benghazi on the Mediterranean coast. The sultan provided a caravan of 500 camels and Shehaymah set out from Wara with promises of great reward if he were successful. From Wara to Um Shaluba and on to the salt pans of Dimi he was crossing fairly well-known country. From Dimi he struck out north-northeast for six days across the desert to 'Gebel en Nari', where a small quantity of water was found in a rock-well at the foot of the mountain, but not enough for so large a caravan. Many of the slaves and camels died of thirst and the survivors rode off three or four hours' journey to the east where they found a second water-course. Leaving Gebel en Nari the party reached Kebabo in Kufara Oasis after five days' journey to the northwest and thence marched via Jalo and Augila to Benghazi.

The position of Gebel en Nari and the rock-well at its foot agree with that of Gebel 'Uweinat, with the spring of 'Ain Duwa at its southwest corner ; and today there is water in Karkur Murr 20 miles to the east. The account of Shehaymah's journey appears to be the first historical reference to 'Uweinat.

¹ *La Géographie*, Nov. 1928.

² *Bull. Soc. Géogr., Paris*, 1849-50.

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Shehaymah's safe arrival at Benghazi roused the interest of the merchants there and six months later he returned to Wara with a large caravan. The meagre water supply at Gebel en Nari later induced the caravan masters to abandon the first found route in preference for the more direct one from Kufara to Tekro or to the northeast corner of the Tibesti hills, but the road from Benghazi southwards to Kufara and beyond has remained in use up to the present day, though greatly improved by the digging of Bishara and Sarra wells by the Senussi in 1898.

Fresnel, from whose writings this account is taken, got his information in Jeddah from Takruri pilgrims on their way to Mecca, from a Wadaian sheikh at El Azhar in Cairo, and personally while on a mission to Tripoli in 1846.

'Uweinat seems to have been forgotten during the second half of the 19th century though no doubt it was visited and periodically inhabited by Tibbu tribesmen from Tibesti. In 1894 the Senussi moved their headquarters from Jaghub to Kufara and in the succeeding years their energetic leader, Sayed el Mahdi, sought to extend his religious and political influence to the southward. The opening of Bishara and Sarra wells followed and later, in the 'nineties, 'Uweinat was re-discovered by men sent out from Kufara by el Mahdi. But to the European cartographers the place remained little more than a name. Harding King³ heard of it from Dakhla before the war and sited it on his map with remarkable accuracy. Arkell⁴ gave an account of the journey of Sultan Ali Dinar's caravan from Darfur by way of Bir Natrun and Merga to 'Gebel Anuar' and thence on to Kufara. Tilho,⁵ in Erdi in 1916, heard of 'Djebel el Aouinat an unexplored mountain mass 80-100 miles east of Sarra', but it was not until Hassanein reached 'Uweinat in April 1923, that its position and character were accurately known.

Hassanein stayed there only a few days, but in 1925 and again in 1926 Prince Kemal el Din, accompanied by Dr John Ball and other scientists, visited 'Uweinat from Egypt by car. To the Prince and his companions we owe the first topographical and geological studies of the mountain.

The heart of the Libyan Desert is monotonously featureless. For mile after mile one may ride one's camel up and down a succession

³ *Geogr. Journal*, XLII, 282.

⁴ *Sudan Notes and Records*, v, 130.

⁵ *Geogr. Journal*, LVI, 95.

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of low stony ridges hoping from the top of each to get a wide view forward, perhaps to see the legendary Oasis of Zerzura, but only in fact the next ridge beyond. Westwards from Selima one may motor for 100 miles over a vast sand-sheet with hardly a break in its horizon line. To the traveller who has crossed the hundreds of miles of desert from the Nile, the first sight of 'Uweinat is unforgettable. From a confused mass of hills to the north the great central ridge rises 4000 feet above the plain, on the south ending abruptly in a sheer cliff face beyond which stand out the sharp pinnacles of the Triple Peak. In the foreground rises the blunt cone of Ras el Abd and from the haze across the plain southwards the fine peak of Gebel Kissu (PLATE I).

Geologically Gebel 'Uweinat is divided into two parts, the eastern end of Nubian sandstone which includes the summit and the steep southern cliffs, and the western end of granitic rocks. A number of valleys, locally called *karkurs*, cut back into the mountain mass and drain out from it onto the surrounding plain. The *karkurs* at the western end are wider and longer; Karkur Ibrahim runs for five miles or more into the heart of the mountain. Here the mountain sides, a mass of huge rounded boulders, fall steeply into the flat plain below. On the east the *karkurs* are narrower and less accessible. To reach the pools in Karkur Murr one has to scramble for a mile or more up a boulder-strewn gorge. The sandstone cliffs in the centre rise sheer from the foothills for six to seven hundred feet. (PLATE III).

Hassanein called his book 'The Lost Oases: 'Uweinat and Arkenu', and on recent maps 'Uweinat has often been named an oasis. But 'oasis' is a misleading word, especially if one thinks of it in terms of the other Libyan oases of Siwa, Kharga, Merga and the rest. The true oases of the Libyan Desert derive their water from artesian supplies, and rain, which falls seldom, contributes nothing to their habitability. The water at 'Uweinat is due to rainfall which percolates through the mountain to collect in a number of rock-pools at the foot. Prince Kemal el Din records eight water-points; of these 'Ain Duwa at the southwest corner is most easily reached and has the best water. In 1932 at least two, and probably more, of the others were dry.

In the tree-trunks and branches piled up in the *karkurs* of 'Uweinat and in the gorge which cuts deep into Gebel Kissu there is evidence of heavy though probably infrequent rainstorms. The *karkurs* issuing from the south and west of the mountain drain away southwestwards towards the dune-belt which crosses the plain on that side, and here are formed a number of shallow mud-pans which carry

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a thin growth of acacias and grass. According to native report these basins were flooded to a depth of six feet or more after the heavy rains of 1927.

But 'Uweinat has received little rain of late years and has been undergoing progressive depopulation. Arkell's informant found there 250 Tibbu and Feizan. Hassanein writes of a population of 150 in 1923; when we visited 'Uweinat in 1930 there were said to be seven men there and at Arkenu, and in 1932 we did not find a soul. The numbers depend upon the grazing and so upon the rainfall, which is uncertain in the extreme. In years of good grazing the Tibbu are said to drive their camels into the narrow valleys, block up the mouth with stones, and leave them to feed there alone for three months.

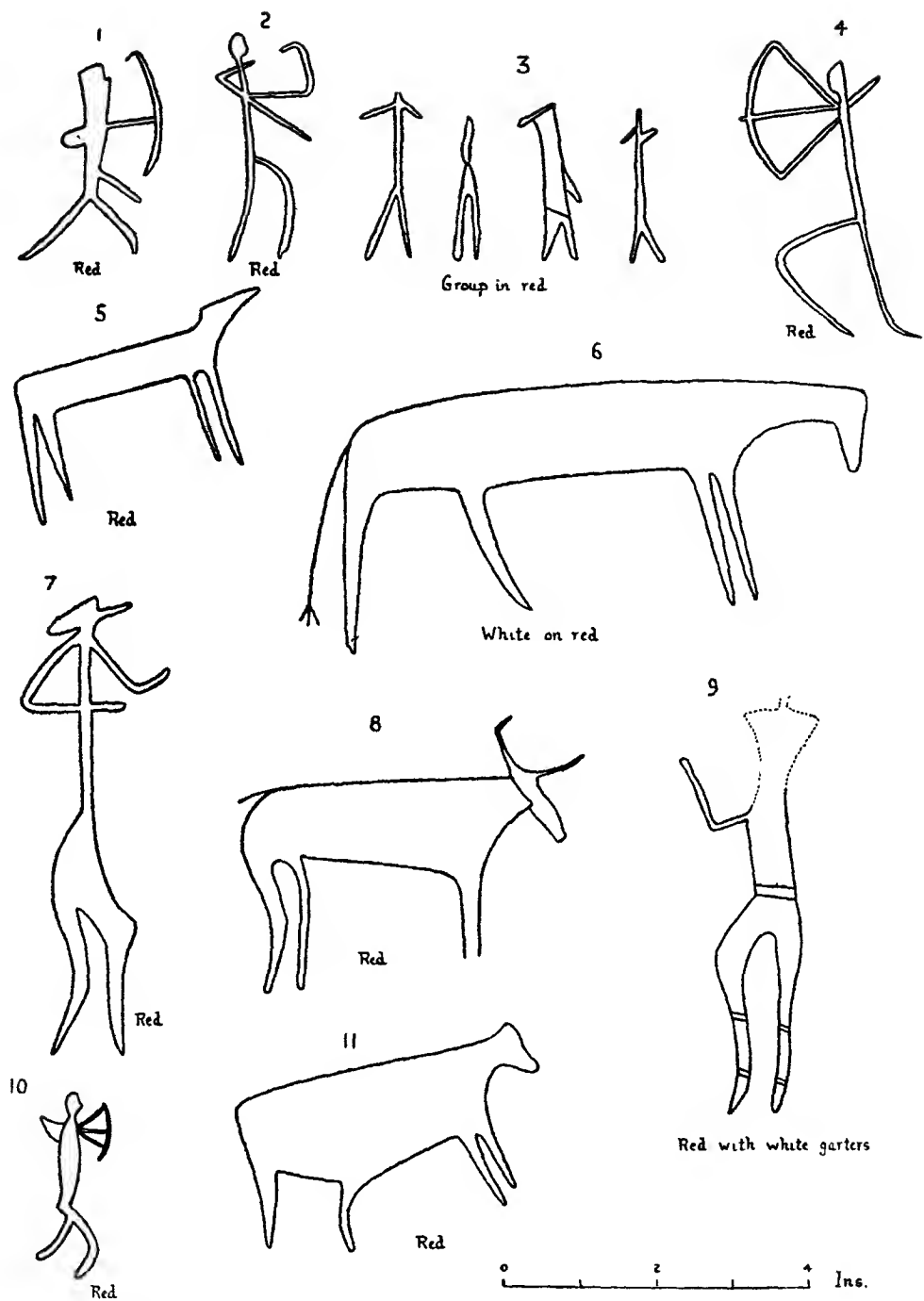
The vegetation is meagre and confined to the karkurs and the mud-pans on the surrounding plain. A few acacias, some grass and drought-resisting herbs are all that the slight rainfall can support. Though 'Uweinat rises to more than 6000 feet above sea level it is not well enough watered to have a montane vegetation such as is found in the Red Sea Hills or on Gebel Marra in Darfur.

To the archaeologist the chief interest of 'Uweinat lies in its rock-pictures, of which a number of groups have been found varying in technique, subject and age. L'Abbé Breuil⁶ regards them as of exceptional interest and importance. The pictures are usually found on rocks at the sides of the karkurs. There are two distinct types, paintings in red or white colouring and designs scored on the rock faces. Hassanein was the first to record them and gives in his book a photograph of a group in Karkur Ibrahim at the west end of the mountain. Some years later a further series of pictures was found by Prince Kemal el Din in Karkur Talh on the northeast, and others, unnoticed or unpublished by the Prince, were discovered in the same karkur by Major Bagnold during our expedition of 1930. These pictures and a new group from Yerguehda Hill 50 miles south of 'Uweinat, which we found on our second journey in the autumn of 1932, are published here for the first time.

NOTES ON THE ILLUSTRATIONS

FIGS. 1-13 are on the ceiling of a low rock-shelter in the sandstone on the east side of Karkur Talh (PLATE II). The site is far up from the mouth of the karkur, which emerges on the north side of the

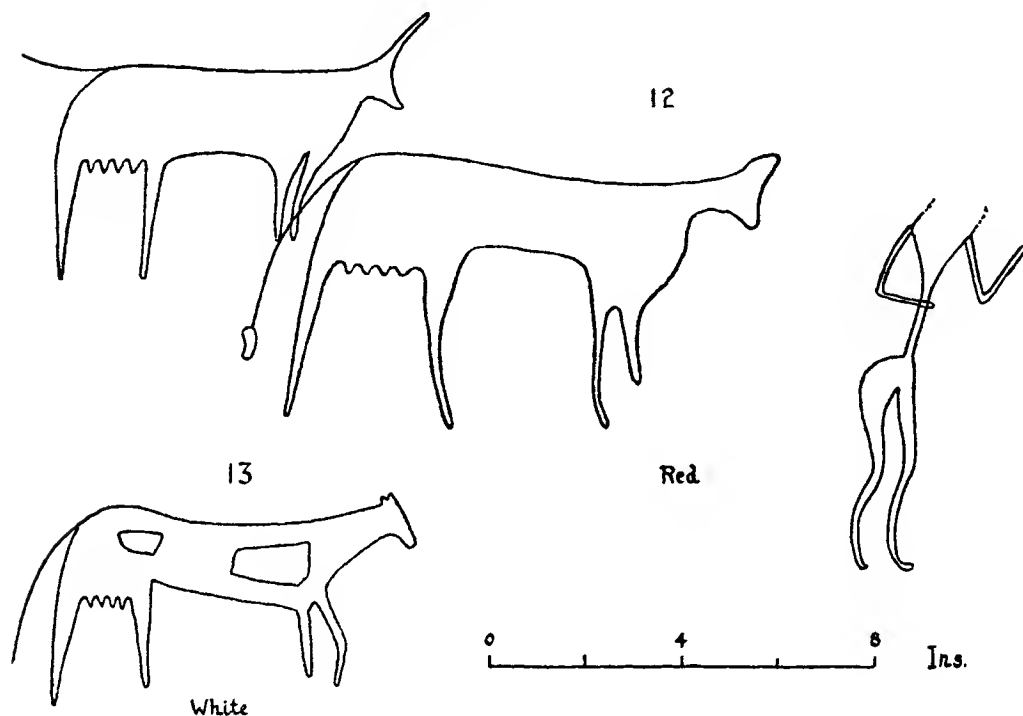
⁶ *Revue Scientifique*, Feb. 1928.



FIGS. 1-11. ROCK-PICTURES, KARKUR TALH, 'UWEINAT

THE MOUNTAIN OF 'UWEINAT

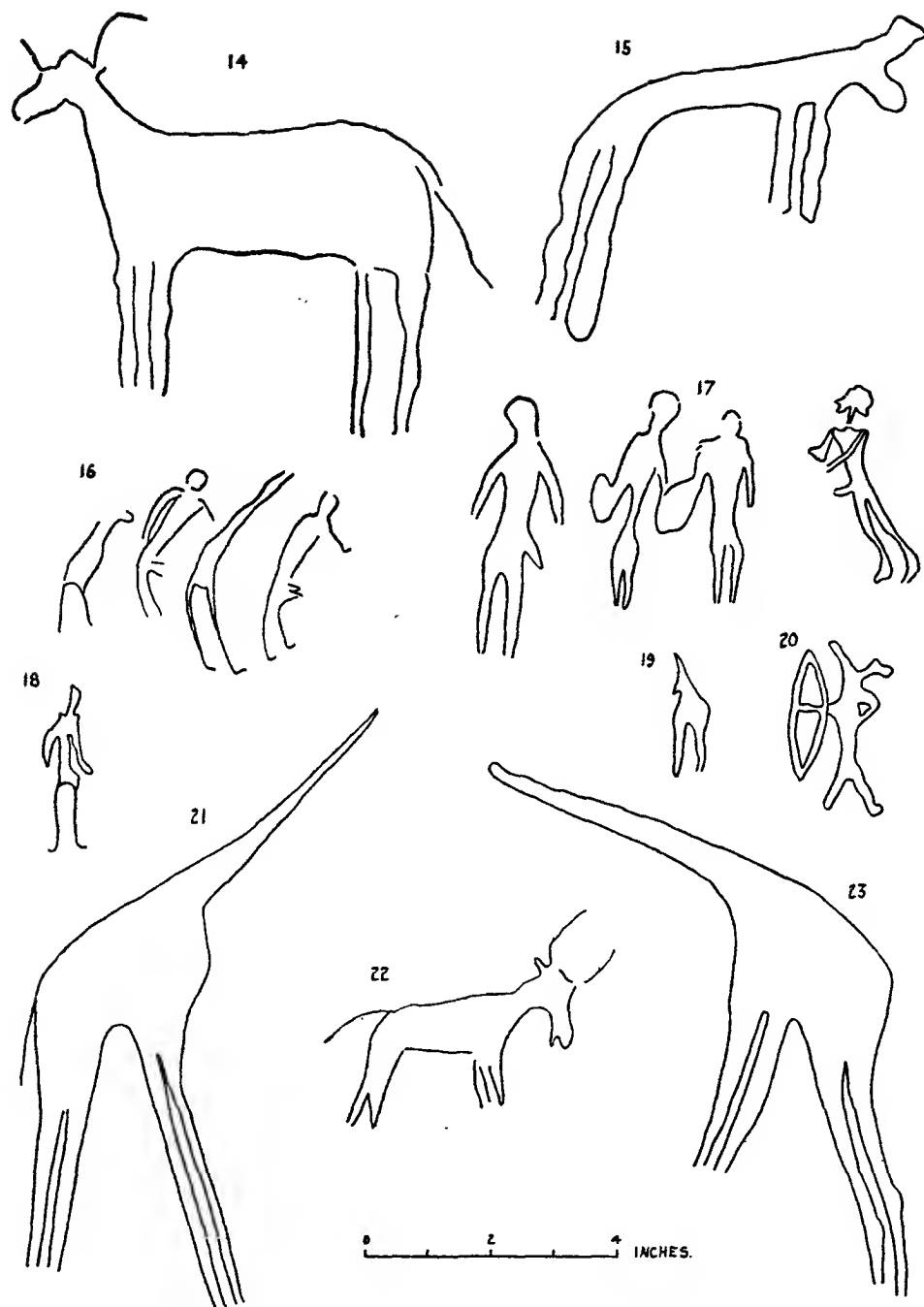
mountain. The roof of the shelter is about three feet high and the paintings can only be seen by crawling in and lying on one's back. They were thus very difficult to photograph and are reproduced here as line drawings though actually they are done in a red or white colour which fills the interior of the design. There are about 90 pictures at this site of which 40 are in red, 35 in white, and 15 in both colours, usually red below with white painted over, sometimes in spots.



FIGS. 12-13. ROCK-PICTURES, KARKUR TALH, 'UWEINAT

The animals in no. 12 closely resemble paintings found elsewhere in Gebel 'Uweinat by Prince Kemal el Din and in which Breuil notes points of similarity both to the Bushman pictures of South Africa and to those at Minateda in Eastern Spain. The paintings should also be compared with those found at In Ezzan* in the Sahara southeast of Ghat. Here again are resemblances to the Spanish and also to the Bushman art. There are similarities in our 'Uweinat pictures to those

* See ANTIQUITY 1927, I, 353-5.



FIGS. 14-23. ROCK-PICTURES, YERGUEHDA HILL, 'UWEINAT

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of In Ezzan, such as the trident-ended tail of no. 6 and the treatment of the head in no. 7. The garters and waistband of no. 9 may be paralleled in South Africa, though the 'Uweinat picture lacks the spirited presentation which is found there.

Many styles and periods are represented in the pictures discovered at 'Uweinat by Prince Kemal el Din ; the paintings we found in 1930 seem to be akin to those for which Breuil suggests an Upper Palaeolithic date.

FIGS. 14-23 illustrate the paintings from Yerguehda Hill. This is a conspicuous hill of igneous rock which rises abruptly out of the plain 50 miles south of 'Uweinat. In the shelter of an overhanging ledge

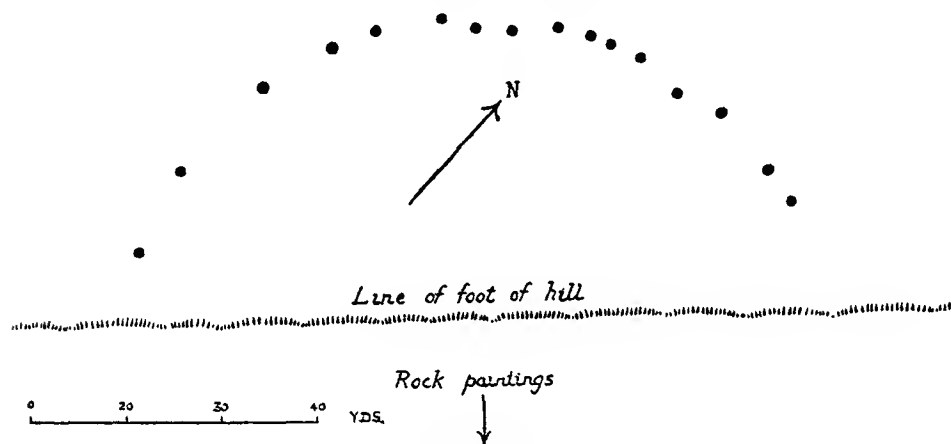


FIG. 24. STONE PLATFORMS, YERGUEHDA HILL

about 50 feet up on the north side of the hill Bagnold found the pictures reproduced here. They are painted on the rock face, mostly in red but a few in white pigment, and depict humans, giraffes and other rather indeterminate animals. They are not very well preserved, probably because they face north and thus are exposed to the prevailing sand-charged winds. In style the two giraffes are not unlike those discovered by Hassanein at 'Uweinat, though the latter instead of being painted are scored in the rock. Apart from this there is little resemblance between the groups at the two hills. The bowman, no. 20, with his plumed headdress, recalls in its subject though hardly in its execution the plumed Libyans of the Egyptian reliefs.

We made an interesting discovery at the foot of Yerguehda Hill. Here, below and apparently oriented to the site of the paintings, was a

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rough semicircle of low stone platforms (FIG. 24). The stones, of sandstone and igneous rock mixed, were laid like 'crazy' paving each patch being 2-3 yards in diameter. There were some 16 platforms in all, at varying intervals of 5 to 25 yards apart, with the two centre ones set in a little from the others. Digging below one revealed nothing and the ground seemed undisturbed. When leaving Yerguehda Hill we noticed similar platforms at the west end of the hill. Around the semicircle Dr Sandford⁷ found minute implements reminiscent of late palaeolithic African workmanship.

It is difficult to suggest an explanation of these platforms, perhaps a circle of fire hearths is the least improbable. Bovier-Lapierre records small stone hearths at neolithic stations near Baharia Oasis. He remarks that the hearths are often regularly disposed around the site.⁸ A few miles north of the small oasis of Laqiya Arba'in we came upon a circle, 12 yards in diameter, of some 20 isolated stones about 12 inches high set up on edge. Nearby were small heaps of stones firmly embedded in the sand with an ashy layer beneath. There is no proved connexion between the rock-paintings and the platforms and implements but their relative position is suggestive.

Not many travellers have visited 'Uweinat or have stayed there more than a few days, but its position, its vegetation though meagre, and above all its water in a very thirsty land must have made it always a place of importance. There can be little doubt that a careful exploration of the mountain and its surroundings would add much to our now scanty knowledge of the history of the Libyan Desert.

⁷ *Geogr. Journal*, Sept. 1933, 220.

⁸ *Bull. Inst. d'Egypte*, T. XII, 127.

PLATE I



GEBEL KISSU (See p. 66)
Ph. D. R. Paterson

PLATE II



KARKUR TALH AT GEBEL UWENAI (See p. 67)
Ph. W. B. K. Shaw

PLATE III



GL BEL. TWEINAT. (See p. 66)
Ph. K. S. Sandford

The Nine Huntings

by IORWERTH C. PEATE

IN his appendix (pages 84-5) to his *Changes in the Fauna of Wales within Historic Times*, Mr Colin Matheson,¹ refers to 'the old Welsh text known as *Y Naw Helwriaeth* or *The Nine Huntings* [which] has been generally regarded as setting forth the hunting customs among the early Welsh'. This text has been published in the *Myvyrian Archaeology* (2nd edition, pp. 872-3) and in Dr John Davies's *Dictionarium duplex* (1632). Both these printed texts however differ in various details from the three known manuscript versions, and while the versions of two of the manuscripts are fairly similar, that of the third differs markedly from the other two. An edition with annotations in Welsh of the three manuscript texts was published (for the first time) by the present writer in 1933.² It was thought that since the texts presented problems of interest to students of British history, a collated translation of the two texts together with a translation of the third, and differing, text would prove to be of value to those unacquainted with Welsh.

The three texts are those of Peniarth MS 155, now in the National Library of Wales (A); Additional MS 31055 (R 32) now in the British Museum (B); and Hafod MS 3, now in the Cardiff Public Library (C). Text A is written in a hand which can be dated to the years 1561-2; B was written by Sir Thomas Wiliems, 1594-6 and C dates to the early years of the 17th century. As Matheson has pointed out, the earliest text 'dates only from about 1560: it cannot therefore be implied, as has sometimes been done, that it *proves* the former existence of the Bear in Wales'.

¹ The writer is indebted for several suggestions to his colleagues, Mr Colin Matheson, Keeper of the Department of Zoology, Mr H. A. Hyde, Keeper of the Department of Botany, and Mr Alfred Thomas, taxidermist, in the National Museum of Wales. In the preparation of the texts, the valuable assistance of Mr G. J. Williams, University College, Cardiff, is gratefully acknowledged.

² *Bulletin of the Board of Celtic Studies*, VI, 301-12.

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The Nine Huntings raises several problems of importance. Text c refers to the Statute of Gruffudd ap Cynan (died 1137) and to 'a hunting statute of the times of the kings'. But the Statute of Gruffudd ap Cynan as handed down to us has no reference to hunting. Parry³ suggests that the texts of the statute are 'broken fragments of different traditions originating from different periods'. Can this hunting code be related to Gruffudd ap Cynan or to his period? It is a problem which at present admits of no solution. There are similarities, it may be noted, between parts of the texts of *The Nine Huntings* and parts of the Welsh Law texts: cf. for instance the second part of A and B with folio 63 of Peniarth MS 37.

It seems safe to assert that *The Nine Huntings* represents an old tradition: it was not a code in force at the time when the texts were written. It is supposed that the brown bear disappeared from Wales before the Norman conquest of Britain; these 16th and 17th century texts however give a detailed description of the methods of hunting the beast. There is every reason for believing that this is a remnant of folk tradition, but it may be suggested that the text is a translation of an English code, the word *boar* being mistaken for the word *bear*. Such reasoning however seems inadmissible. As far as the writer can ascertain there is no known English original and, even if there were, the reasons given for hunting the bear—which would not hold for a boar-hunt—would have to be explained away. At the same time, it seems strange that in a Welsh hunting-code, the wild boar is not mentioned in one of the nine huntings, although the boar figures prominently in early Welsh literature. And although the hunts are classified, in true Welsh fashion, in triads, reference is made to *four* 'chief venison', that of the boar being third and the bear fourth.

The phrase 'cock of the wood' raises another problem to which Matheson also refers. Was this bird the capercaillie? Edward Lhuyd (v. John Ray, *Synopsis Methodica Animalium*, 1693, pp. 213-4) and John Davies (*Dictionarium duplex*), two expert Welsh scholars of the 17th century, translate it as *phasianus*. But in a poem by Gruffydd Hiraethog, who lived in the 16th century, as well as in a poem in an unknown hand (Peniarth MS 11) ascribed to about 1500,⁴ the common pheasant is referred to as *ffesant*, not *ceiliog coed* (cock of the wood).

³ *B.B.C.S.*, v, 25-33.

⁴ The writer is indebted to Mr Ffransis G. Payne of the Carmarthen Museum for this second reference.

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The poet referred to describes the *ffesant* or *ffesont* as being of 'sixty colours with the gold showing through red . . . a medley of moving colours'. He mentions its 'gold bars and the golden broom upon its breast'. This is of course the pheasant which this poem shows to have been a late-comer to Wales. 'Under trees or in bushes', states the poet, 'there have never been any [pheasants] in Merionethshire. But now in the Llanddwyne district they fill every place'. But even if the pheasant had been known in Wales long before 1500, it is unlikely that it would have been hunted with hounds, and it seems certain that the term *phasianus* was used by Lhuyd and Davies in its general generic sense.

It has been suggested that the cock of the wood was the woodcock but—apart from the fact that Dafydd ap Gwilym (late 14th century) and George Owen⁵ refer to snares and nets for hunting the woodcock—the argument does not hold since the woodcock has a well-established Welsh name, *cyffyllog*. It is unlikely too, that such a good naturalist as Lhuyd (or indeed Davies) would name the woodcock which is so unlike the pheasant family, *phasianus*.

Matheson suggests that the *ceiliog coed* was the capercaillie. The capercaillie's English name before the Gaelic form found favour was 'Cock of the Wood' and Pennant—who knew his English far better than his Welsh!—states⁶ that the *ceiliog coed* of the *Nine Huntings* was the Cock of the Wood. But he did not write from personal knowledge: he knew his Scotland where the capercaillie flourished. No remains of the bird have been found in Wales but bones were discovered on the Late Celtic and Romano-British site at Wookey Hole, Somerset. It is reasonable to suppose that it could be termed *phasianus* in the 17th century. Professor Alfred Newton, F.R.S., who was probably quite unacquainted with *The Nine Huntings*, describes the method of hunting the capercaillie on the Continent thus: 'The usual method of pursuing this species . . . is by encouraging a trained dog to range the forest and spring the birds, which then perch on trees; while he is baying at the foot their attention is so much attracted by him that they permit the near approach of the master who thus obtains a more or less easy shot'.⁷ This is indeed the method which *The Nine Huntings* suggests and the difficulty of shooting the bird even in the 20th century is in itself a sufficient reason for the use of hounds. It may be argued that

⁵ *The History of Penbrokshire*, completed May 1603.

⁶ *Tours*, II, 280. ⁷ *Dictionary of Birds*, 1896, 74.

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its strong wings might take it out of the dog's reach for miles but it does not seem to take long flights and Pennant states that its 'nature is to sit perched on a bough where it will gaze till it is shot'.

The capercaillie feeds upon the young shoots of coniferous trees especially. But it is assumed that in these islands *Pinus sylvestris* is native only in Scotland and the problem arises: were there any conifers for the bird to feed upon in Wales in the period with which we are dealing?⁸ It is here that our Welsh evidence is helpful. Dafydd ap Gwilym, an outstanding 14th century poet, has a poem to the *ceiliog coed* in which he writes:

'Thou dost not need, chief joustier,
Food during the day time except *birch* and water.
Food from the shoots of the hillside birches,
Food for the hens from the green birches'.

Here is definite proof that the capercaillie fed on birch, and Sibbald⁹ confirms this statement by referring to the bird's custom in Scotland of feeding upon *betula* as well as upon conifers. The same is true of the birds reintroduced into Scotland.

This statement by Dafydd ap Gwilym helps us to understand the reference to the capercaillie as 'one of the chief [or most important] game birds'. Those birds, which feed exclusively upon conifers, are practically uneatable, for as Newton states, their flesh smells strongly of turpentine and I am informed by those who have shot the bird that in some cases the birds have to be buried for some weeks to be rid of the smell. But when the food is birch this is not so, and the flesh is indeed a delicacy—so much a delicacy that probably it was over-hunted in Wales in medieval times until finally it disappeared.

Dafydd ap Gwilym's description is correct in all details. He describes the capercaillie as 'the brave cock with a black cloak, dancing, coral-browed. [The reference to "dancing" is obviously to its "play" or "spel",¹⁰ the poem itself is erotic]. Its tunic is of the same colour as the magpie's cowl . . . it wears a green chasuble and its wings [lit. armpits] are edged underneath with white'.

⁸ Jones, Yapp and Johns: 'The Salt Marshes of the Dovey Estuary', *Journal of Ecology*, 1917, 27-103. Yapp enquires whether 'the living pine trees found on the moor today are the lineal descendants of the ancient pines of the buried forest (in the Dovey estuary)'. The writer thanks Mr E. Price Evans for this reference.

⁹ *Scotia Illustrata*, 1684.

¹⁰ Saunders and Clarke, *Manual of British Birds*, 806.

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It seems definite therefore that the *ceiliog coed* of this hunting code is the capercaillie and that the code itself represents a hunting tradition dating back to the time of the Welsh princes.

The translation of the texts is as follows :—

MANUSCRIPTS A and B

These are the nine huntings which every man should know who sounds a horn. And whatever a huntsman who carries a horn is asked concerning these nine huntings, unless he reply satisfactorily concerning them, he who questions him can, by law, take his horn away. The three first are called common hunts, namely a stag, a swarm of bees, and a salmon : the second is called a hunt with baying, namely, a bear, a climber, and a cock of the wood : the third is called a hunt with cries, namely, a fox, a hare, and a roebuck. Why is it said that a stag is one of the three common hunts ? Because it is the finest and bravest animal in the world to be hunted by hounds and greyhounds. Secondly it is called a common hunt because it is shared between every man who may come upon it when it is killed, before the skin is drawn from the flesh. If a traveller happen upon it at that time, he shall have a share by law as well as he who killed it. The second common hunt is a swarm of bees. Whoever finds it too upon another's land or upon his own, it is still to be shared between those who come upon it before he sets his pledge, that is, to place a mark upon it to show that he found it first. Unless this is done, all shall share it by law except that *iiijd* must be given to the owner of the land. A salmon is the third common hunt when it is hunted and caught with a net or spear or in any other way. Whosoever shall come before it is shared shall by law be entitled to a part of it or of them as well as they who caught it.

Why is the bear one of the three hunts with baying ? Because it is the best venison in the world. And when it is killed, it is not much chased because it can walk but slowly and then it need only be walked off its legs and barked at and at last killed, and for this reason it is called one of the three hunts with baying. The climber is the second, that is, every creature which climbs to the top of the tree to defend itself. And no one should call or say ' wood cat ', ' pole cat ', or ' squirrel ', but call them, grey climber, black climber, red climber, and so should every huntsman refer to them and name them. And when a climber is chased it cannot flee far from the hounds but takes to a tree to defend itself. And there it is tired out and barked at,

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and for this reason it is called one of the three hunts with baying. Why is it said that the cock of the wood is one of the three hunts with baying? Because it is one of the chief birds and when the hounds are upon its haunt they chase it until it takes to a tree and there tire it and bark at it. And for this reason it is called one of the three hunts with baying.

Why is it said that the fox is one of the three hunts with cries? Because it defends itself despite the shouting which follows it and the sounding of horns. It maintains itself until it begins to tire and therefore it is called one of the three hunts with cries. Why is the hare said to be one of the three hunts with cries? Because it keeps to its course and so defends itself though hunted and chased, and behold that is the reason. Why is it said that the roebuck is one of the three hunts with cries? Because it too maintains itself when hunted, like the hare and fox and that is the cause for so calling it.

These are the four chief venison, namely, stag, hare, wild boar, and bear.

Whosoever sets greyhounds at a stag or another animal when it is being hunted and the hounds follow it over a hill or climb out of sight, if the stag be killed the hound which was foremost when last seen gets the skin.

As for the hare, whatever hound kills it, the hound that raised it gets the hare by law or whatever raised it from its form, that owns it if it be wanted for hunting.

Also a grey-bitch does not get a skin though it win it unless it be pregnant from a greyhound which has won a skin, and if it be so, it gets the skin by law if it win it. Also none shall come into the field with his leash upon him unless he can give an answer concerning the nine huntings and if he come he loses the leash but if he give answer he can place the leash upon his arm without vengeance.

Also none shall loose a greyhound or bitch on to any animal when the hounds chase it unless his own hounds are already in the chase. And if such be the case he is free to kill the animal with greyhound or bitch. But if anyone loose a greyhound or bitch on to the animal without his hounds being in the chase, any one who follows the hounds can hamstring it if he bears its master ill-will, and that is law.

Also none shall shoot a hare, a young red deer, stag or roebuck or any hunted animal in the world when it is at rest. And whoever may do so forfeits his bow and arrow to the lord of the land but he may,

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when the hounds chase the animal, shoot and kill it if he can, freely, though he is not to shoot amongst the hounds and greyhounds.

If anyone should happen to go hunting and begin loosing upon an animal, whatever animal it may happen to be, and idle dogs meet it and kill it, the dogs which first raised it shall have it. Unless the idle dogs are the king's.

This is the length [of time] that the first huntsman can claim an animal, until he turns his face homewards and his back to the hunt. While his dogs hunt and he has left his dogs, he can claim nothing if idle dogs kill an animal for the owner of the idle dogs shall own it.

These are the three things which cause the hounds to chase the stag better than any other animal in the world.

Namely, because it sweats so much, when it is hunted, that the sweat runs over its feet from its limbs to the ground, and when the hounds get this they become so joyful that they cannot leave the chase but from true enjoyment must get that sweat.

The second cause, when the stag is so tired that it can hardly walk it throws out white foam and when the hounds get this, they are still more joyful and follow it without stop.

The third, when the stag gives up the chase it throws out foam and blood mixed and when this is done, the hounds know it is finished and follow it until they come to it.

MANUSCRIPT C

Three common hunts ¹¹	{ Roebuck Fox Hare
Three hunts with cries	{ Wild stag Swarm of bees Salmon
Three hunts with baying	{ Wild bear Cock of the wood Climber

A climber is whatever animal which takes to a tree for defence, namely, wood-cat, pole-cat, squirrel; and in hunting these wherever a company of huntsmen hunt a hare, and kill it, as eloquent¹² huntsmen

¹¹ Note the confusion here. The 'common hunts' and the 'hunts with cries' have been transposed.

¹² This is a sly hit!

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do, to play fair with the Statute of Gruffyth ab Kynan in that place first [it must be] given to a pregnant woman and if [this be] not [possible] to whomsoever saw it lie and, if not this, to the huntsman who follows the hounds and, if not this, to the strange huntsman, and, if not this, to the greyhound whelp that was never out before that day and, if not this, to the first who laid hands upon it. And so it ends.

These are the chief points in the hunting statute made in the time of the kings of the Britons, ordered and ratified by royal authority.

Whosoever goes hunting to field or wood or mountain or forest and wear a horn on his right side and a leash across on the other, he must know the nine parts of hunting and name them and classify them. Anyone who challenges him must take his horn and his leash from him unless he can answer the points already mentioned, and the law shall be his authority.

Nine parts of hunting there are, namely :—

Three common hunts

Three hunts with cries

Three hunts with baying.

Read the remainder after this.¹³

¹³The reader should also consult John Lewis's *The History of Great-Britain* (London, 1729, but written a century earlier) where chapter XII deals with 'the Hunting of the Britains' in which *The Nine Huntings* is discussed.

Sidonius and His Times*

by THE EDITOR

THE unique interest of Sidonius lies in the fact that he 'stands between the old world and the new, and is a witness for both of them' (p. 166). His letters are almost the only non-theological documents of the fifteen centuries which have survived; and this fact alone gives them a historical value that cannot be exaggerated. A critical and well-documented biography by one who has made the subject his own is therefore most welcome. In the following pages I do not propose to say more by way of commendation of the admirable biography by Mr C. E. Stevens, but rather to consider certain special points in it which are of current interest. Needless to say, the interpretation of the history of the period is my own, and the author would very probably dissent strongly from it.

Sidonius was born about 432 and he died between the years 480 and 490. He was a member of the Gaulish aristocracy, and although we are not told directly from what source he derived his income, we may infer that it was partly derived from rent of land, partly from the numerous official positions which he held at various times in his career. He appears throughout his life to have been 'in comfortable circumstances'; and whether as country gentleman, *praefectus urbi* or bishop, his interests were bound up with those of the class to which he belonged, and with its decaying and unreal classical culture (pp. 78, 82, 111, 177). He was himself fully conscious of his representative character, and of the consequent sterility of his Muse (p. 110). He left no successor and was 'the last of the Romans in Gaul, for with him the Roman tradition was broken' (p. 18).

His education was of the kind that dominant classes have always prescribed for themselves in such ages as this. 'The aristocratic class consisted of men with time hanging heavily on their hands, and they amused themselves with literature' (p. 14). They were taught to

* SIDONIUS APOLLINARIS AND HIS AGE, by C. E. STEVENS. *Oxford, at the Clarendon Press, 1933. pp. 238, with map and 1 plate. 12s 6d.*

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imitate the style of ancient authors, both in the spoken and in the written word. 'Sidonius says, "pupils received instruction in epic, comic and lyric poetry; in history, satire, grammar, panegyric, philosophy, epigram-writing, and law"' (p. 8). To these subjects may be added those of geometry, arithmetic and astrology (p. 7); and in vacation-time, hunting and fishing (p. 9). 'There is no hint in Sidonius' work that he received any religious instruction at all: the education of the lay-schools still remained a pagan education' (p. 5).

An educational system such as this was in keeping with the culture of the age. 'Still fumbling at the ideas of centuries before, it was trying with ever diminishing hopes of success to illustrate them with a new turn of phrase' (p. 111). It boasted that it lived in the past, and even apologized for 'trifling' with affairs of the day (p. 6). 'The kindest criticism of 5th century educational principles would be that they set more store on the training of the intellect than on the intellect itself. It is no less true to say that they taught men to think and write and gave them nothing to think or write about' (p. 16). What a cruel critic would say Mr Stevens does not tell us; perhaps he would compare 5th century education with our own. That such a comparison was present in Mr Stevens's mind is, however, apparent from his reminder 'that there are [today] school debating societies in which it is forbidden to discuss politics or religion [which] shows that the practice of debating on subjects removed from actuality is still recognized as a part of education' (p. 13). He might have added that the prohibition is not confined to those of immature age, but has a much wider extension.

I have spoken of the 'culture of the age'; but it should be remembered that the basis of this culture was an exceedingly narrow one. It was confined to the members of a small class who formed numerically but a tiny fraction of the community. There had been a time when this fraction had held undisputed sway; but there were now two rival claimants for power, the Christian Church and the barbarians. The history of the 5th and succeeding centuries has hitherto been treated simply as a struggle between these contending parties. Indeed the character of the documentary evidence is such that any other method of treatment would probably fail for lack of material. Nevertheless it must not be forgotten that behind these conflicts there was ever present the mass of the people whose work, in field and workshop, made those conflicts possible. Over the bound and helpless body of these people, the Roman and barbarian rulers fought for the privilege of extracting surplus value, while the Church was busy organizing itself to make

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the best of both worlds. The people of Lyons might be forgiven if they assessed the difference between Roman and barbarian mainly in terms of the capitation tax they had to pay. After the recapture of their town by the Romans 'the inhabitants were compelled to give hostages and the usual capitation tax was increased threefold' (p. 45).

The rôle of the Church was a more subtle one. Christianity had undoubtedly begun as a movement of revolt from below, for the establishment of a new order of society on earth. It had long lost this character, however, and in Gaul in the 5th century the Church was firmly allied to the ruling classes, from amongst whom indeed many of its principal officers were recruited. Sidonius and his friends plainly regarded the Church as an organization which might help them to retain the power they were so rapidly losing. He speaks of 'holding the people of Gaul by religion, even if we cannot hold them by treaty' (p. 159; cf. pp. 40, 113); and he himself ended his career as a bishop. It is an interesting question to what extent the policy of the Papacy consciously and deliberately aimed at prolonging, by other means, the supremacy of the Roman Empire. To what extent, for instance, was Augustine's mission an attempt to recover the lost province of Britain? Was the Synod of Whitby in essence a subtly disguised conflict between Roman and barbarian?

However this may be, there can be no doubt on which side of the barricades the Gaulish bishops were to be found. They were rich ('even in sixth-century Gaul a bishop could die leaving more than twenty thousand pieces of gold', p. 122). They and the clergy were exempt from certain forms of taxation (*ibid.*). They lent money upon usury (*ibid.*). They sided with slave-owners against slaves (p. 139), and judged the conduct of master and slave by different standards of morality. Sidonius himself was a slave-owner, and he regarded the seduction of one of his own slave-girls by another man's slave as a 'wicked crime'; but in another instance, when the seducer was an aristocrat, there is no longer a word of 'wicked crime'; he congratulates his friend the seducer on having abandoned her and taken a legal wife (pp. 85, 86).

It was possible to become a bishop without graduating in the lower orders of the hierarchy, or by passing through them rapidly as a mere formality. Thus it was that Germanus, an army officer, and Ambrose, a civil servant, were recruited. Their functions were administrative, and as such were used, though never formally legalized, by the State (p. 115). They also acted as judges, food-controllors (p. 100) and jurists

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(p. 158). The methods by which they were elected, though outwardly democratic, left the ultimate decision in the hands of the bishops themselves (pp. 123 ff.). In exercising this right of electing a colleague, due attention is given to the opinion of other members of the ruling class as regards the suitability of the candidate (p. 125).

In view of these facts Mr Stevens's description of bishops as 'spiritual rulers' (p. 165) seems ill suited. The term 'spiritual' indeed is a question-begging one at all times ; but unless it is held to cover the adoption of prayer as a military expedient (p. 152), there is little trace of 'spiritual' activities to be found in the book before us.

The history of Christianity during the first five hundred years of its existence is, indeed, singularly like the history of social democracy. Both began as attempts to reconstruct society on a new basis ; and both eventually developed into institutions for maintaining the existing order of society. Christianity, however, had one great advantage over the later organization : whereas cheques drawn on the bank of social democracy are to be cashed (it is alleged) when it has achieved temporal power in this world, cheques drawn on the Church can never be cashed till the drawers are dead. They can never therefore be dishonoured. Perhaps partly for this reason, perhaps also because it had no serious rival, the Church managed to survive in spite of its complete change of front. There is indeed, throughout this life of Sidonius, hardly a trace of any 'subversive' movements. What chance had peasant and slave against the forces organized on the other side ? The real trial of strength lay between Rome and the barbarians, and whichever side won, peasant and slave lost. The line of cleavage was not social but racial ; it was only social to the extent that it was a contest between ruling classes with different traditions and methods of exploitation. During this contest methods of barbarism were adopted, as they always are when a ruling class sees the prey slipping from its grasp ; but they seem to have been used by Rome against barbarian and *vice versa*, not against the mass of people indiscriminately. Their strikingly modern flavour—the censorship of the post (pp. 78, 182), camouflage of murder (p. 58), death penalty for libel (p. 53), extraction of confessions by torture (p. 104), anti-Semitism (p. 136)—is therefore deceptive. Goth and Roman certainly feared each other less than certain modern rulers fear their subjects ; and so far as we can learn from Sidonius, the break-up of the Roman Empire in Gaul was peaceful compared with the collapse of modern European civilization.

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THE 'AQUATILE BEAST' OF NESS

Amongst all that has been written about the Loch Ness monster I have nowhere seen any reference to the earliest account of it (though I have not wasted much time on it, all told). This occurs in Adamnan's *Life of Columba*, which is one of the best historical documents of the Dark Ages, written before 704 and preserved in an almost contemporary early 8th century manuscript. The passage may be translated as follows¹ :—

' At another time, when the blessed man was staying for a few days in the province of the Picts, he had need to cross the river Nesa (*fluvium Nesam*). When he approached its bank, he saw some of the inhabitants burying an unfortunate man (*homunculum*) ; and as they were bearing him along he was snatched away by a certain water-monster (*aquatilis bestia*). The unfortunate man's body was snatched back, though too late, by some people who came up in a boat and seized it with hooks (*porrectis praeripuerunt uncinis*). The blessed man, on the other hand, hearing this, ordered one of his companions to swim across and fetch a boat moored on the opposite shore. Hearing this command of the holy and august (*praedicabilis*) man, Lugneus Mocumin complied without delay and leaving behind his clothes except the tunic cast himself into the water. But the monster (*bellua*) which, far from being satiated, was on the contrary rather aroused for prey (*in praedam accensa*) was lurking in the depths of the river ; and when it perceived the water above it to be disturbed by the swimmer, it suddenly emerged and swam towards him with a mighty roar and gaping mouth. All who were present, barbarians as well as brothers (*i.e.* natives and monks), were exceedingly terrified ; but the blessed man raised his holy hand and outlined (*pinxisset*) the saving sign (*signum salutare*) of the cross in the empty air, and calling on the name of God, commanded the fierce beast, saying, " Come no further and do not touch the man ; return quickly

¹ Original printed in W. Reeves's *Adamnan*, 1857, 140-2 ; J. T. Fowler's *Adamnan*, revised edition, 1920, 142-3 (Book II, chapter 27).

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back again". Then indeed the beast, hearing the holy man's word, fled back trembling in swift retreat, as if it were withdrawn by ropes. Before this he was so near to Lugneus that only the length of a pole (*contuli*) separated the man and the beast. The brothers, seeing the beast retreat and Lugneus their comrade (*commilitonem*) returning to them safe and sound in the boat glorified God in the blessed man with great wonder. But the barbarous natives (*gentiles barbari*) also who were present were forced by the greatness of the miracle which they had seen themselves to magnify the God of the Christians'.

The identification of the river Nesa with the river flowing into the sea at Inverness may be regarded as quite certain.² The legend of the Loch Ness monster is therefore at least 12 centuries old. What can have given rise to it? My own opinion, based upon investigations carried out by *The Illustrated London News* (January 1934, pp. 39-41), is that the monster originated in a floating log. It should be observed that, in the story, the monster haunts the *river*, not the lake; and that floating logs and tree-trunks are exceedingly dangerous to small craft in a rapid torrent. They would be of common occurrence in a river issuing, as does the Ness, from a long lake with precipitous tree-covered banks. Actually such a log was mistaken, by one recent observer, for the monster; and it was only when he brought his binoculars to bear upon it that the error was rectified.

The Ness is not the only river in which monsters occur. Reeves³ quotes other instances, all in Ireland:—Lough Ree (Colgan, *Acta SS.*, p. 790^a); Drumsnatt, co. Monaghan (*Flem. Collect.* p. 372^b); Banagher, Londonderry (*Breviary of Aberdeen*, *Propr. SS. Part. Hyemal.* fol. 101bb, lect. 7). O.G.S.C.

CYPRUS MUSEUM EXCAVATIONS (PLATES I-II, p. 88)

The archaeological work undertaken by the Cyprus Museum in 1933 has been marked by an important discovery, that of an extensive neolithic settlement near the village of Erimi, 10 miles west of Limassol, at a distance of 3 miles from the south coast of Cyprus.

Until a few years ago, the Stone Age in Cyprus was practically unknown,¹ sites belonging to this period not having been discovered. Nevertheless Dr E. Gjerstad found a neolithic settlement near

² See Watson, *Celtic Place-names of Scotland*, 1926, p. 77.

³ Adamnan, 1857, 140, note c.

¹ See J. L. Myres, *Handbook of the Cesnola Collection of Antiquities from Cyprus* (New York, 1914), p. xxviii.

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Phrenaros, in the Famagusta district and cleared a house in which neolithic flints were found,² though no sign of pottery could be traced. The same archaeologist carried out excavations on a large scale in Cyprus as leader of a Swedish Cyprus expedition, which discovered more sites belonging to the neolithic age :—(a) at Kythraea northeast of Nicosia ; (b) at Lapithos near the north coast and (c) at Petra tou Limniti, a small island off the northwestern coast.³ The sites of Kythraea and Lapithos yielded pottery of painted and unpainted types.⁴

By these discoveries, the existence of a Stone Age in Cyprus was definitely established, though material of any extent for the study of this culture was lacking.

The pottery discovered on the two sites mentioned consisted only of potsherds, very few whole vases having been made up, and these of the unpainted class of ware. Material for the study of the origins and the evolution of this important culture was hoped for, and the discovery of the neolithic settlement of Erimi should greatly elucidate the problem.

Erimi stands on the left bank of the torrent Kouris, which carries rainwater from the Troodos mountains to the sea. The last hills of the southern side of these mountains are seen in the distance. Not far from the right bank of Kouris is the magnificent rock of the Acropolis of Curium.

Excavations began last April and continued until June. A trial dig had revealed several superimposed layers and during this season work was directed towards the clearing of a limited area of the settlement and then to the deeper strata. At the end of the season we were able to advance to the depth of 2 metres, through which four distinct layers were laid bare ; next season's work will be devoted to the clearing of the succeeding layers down to the virgin soil.

Each of the layers was distinguished by a separate house of a circular type. All the four layers yielded a large amount of pottery, mostly of a painted type, stone and flint implements, steatite ornaments, terra-cotta figurines and other objects of stone or clay.

The first layer house was uncovered at a depth of 40–50 centimetres below the surface of the earth. It was circular, measuring 6 metres across, with a substructure wall built of irregular stones. The entrance

² *Antiquaries Journal*, January 1926, VI, p. 54 ff. ³ JHS, 1929, XLIX, 237 ff.

⁴ E. Gjerstad, *Union Académique Internationale : Classification des Céramiques Antiques*, classification 16 p. 1, 2 and *Catalogue of Vases in the British Museum*, I, part 1, page 15, no. A75, fig. 23.

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was at the southeast and the interior was divided into several parts, which may have suited the various needs of life. Immediately inside the entrance, on the right, was a circular raised construction which was the hearth. The place where the grain was ground was marked by a mortar and pestles which were still *in situ*.

This first-layer house was built exactly over another circular house which had been destroyed by fire. This was simpler and had a hearth of simple type and an oval concrete area which may have served as the sleeping place. This second house yielded a magnificent pithos (PLATE I) with flat base, convex sides and decorated with a wonderful pattern painted in red, sometimes turning to brown.

A third-layer house was uncovered underneath the two previous ones and partly outside them. This house was also of the circular type and was built in a similar way as the other two. In the centre there was a raised concrete circular area measuring 1 metre across with a round depression in the centre. This area sloped towards a large hole, with sides covered with mud. The use of the concrete area remains uncertain although it may have been used for grinding grain. The third house yielded abundant pottery, mostly of the painted type. The fourth house was in very poor preservation.

The pottery found at Erimi is for the most part painted. The clay is not well sifted but is hard-baked. The surface is covered with a very fine buff slip on which painted patterns are applied in red, which sometimes turns to brown according to the different degrees of baking; the shapes are represented by pithoi with flat base and convex sides, deep bowls with flat base, hydriae with narrow neck and pointed base. The ornamentation is mostly geometrical in style but of a very elaborate character. The study of the stratified pottery finds will give us a complete picture of the evolution of this art through the Neolithic Age.

Besides pottery we found a large number of stone axe-heads and chisels, flint implements of all kinds, pestles, mortars, and a great number of small pendants in green steatite. Particularly interesting are some terra-cotta figurines of a very primitive style.

This important discovery will throw abundant light on the Stone Age culture in Cyprus. It shows that the great tradition in the creation of vases goes back to the Stone Age, during which the potters made vases of a wonderful technique and style.

The question of the date of the Erimi settlement will need careful examination. The year 3000 B.C. is usually considered as the approximate date for the end of the neolithic period and the beginning of the

PLATE I



NEOLITHIC WHITE PAINTED PITHOS FROM THE SECOND LAYER AT ERIMI
Height 0.53 m. Diameter: 0.37 m. (See p. 89)

PLATE II



LIMESTONE HEAD OF A VOTIVE STATUE FROM A TEMPLE AT POTAMIA, CYPRUS
The statue may have been dedicated to Apollo as the head reminds one of this God (See p. 88)

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metal periods, but this problem will be left until the excavations are completed, when it will be possible to draw definite conclusions.

Besides the work carried out at Erimi, the Cyprus Museum excavated a necropolis situated to the west of the Acropolis of Curium, near Episcopi, not far from the small church of Hagios Ermogenes.⁵ In this necropolis tombs from the transitional period between the Late Bronze Age and the Iron Age have been opened. Besides these there were tombs of an advanced stage of the Early Iron Age and others which had two different burials, one belonging to the Early, and another to the Middle Iron Age. The type of the tombs was the square chamber rock-tomb preceded by a fairly long-dromos with steps cut in the bank wall. They contained vases of Cypro-Mycenaean workmanship and especially stirrup vases of Cypriot make. The British Museum excavated in 1895 Mycenaean tombs near the village of Episcopi⁶ and the discovery of this new cemetery with traces of Cypro-Mycenaean culture is most interesting because it proves definite mixture of the two cultures, the Mycenaean and the Cypriot, in this part of the Island.⁷

The dromoi of the tombs belonging to the advanced stage of the Early Iron Age were pit-shaped with steps cut on the back-wall but with a curious feature : their bottom was covered with many layers of stones simply thrown in anyhow. The doorway was always at the side of the tomb and was closed with a large pile of small stones.

A third site, near the village of Potamia, in the Nicosia district, excavated last October–November, yielded important sculptures.

The site was that of a temple, which must have fallen into ruins in ancient times as nothing or very little could be traced of the foundations. The finds consisted of a number of limestone heads, torsos and other fragmentary statues of various periods from the archaic to Hellenistic times. The site is mentioned by Richter,⁸ and is attributed by him to Resef-Apollo and Melqart-Herakles.

Some of the 4th century heads, which belong to votive statues, may be attributed to the god Apollo ; of these the most beautiful is illustrated here (PLATE II). It represents a young male figure crowned with a wreath and a diadem, below which appears a row of curls around the forehead. The workmanship shows evident influence of the sculpture of the Greek masters of the 4th century and is remarkable for its high level of artistic excellence.

⁵ *Excavations in Cyprus* (London, 1900), p. 60. ⁶ *Op. cit.* p. 61.

⁷ *ANTIQUITY*, 1928, II, 190. ⁸ *Cyprus, the Bible and Homer*, p. 18.

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Besides the archaeological work described in these notes, the Cyprus Museum collaborated with M. Claude F. A. Schaeffer, the well known archaeologist and representative of the National Museums of France, in the Early Bronze Age necropolis of Vounous near Bellapais in the Kyrenia district. The Cyprus Museum undertook work in this necropolis in 1931 and 1932 with very important results,⁹ which will be published in due course.

P. DIKAIOS,

*Curator of Cyprus Museum and
Director of the Excavations.*

We are glad to see that the 'preservation, maintenance, discovery and examination' of monuments in Cyprus will now receive the attention they deserve. A strong Committee has been formed to interest the public, to ascertain what is most necessary to be done immediately, and to collect funds. It is hoped that during this Spring Sir Charles Peers, President of the Society of Antiquaries and lately Chief Inspector of Ancient Monuments to H.M. Office of Works will be able to visit Cyprus and report for the information of the public. A letter from Lord Mersey, Chairman of the Committee, outlining the proposals, was printed in *The Times*, 31 January (p. 13). We warmly endorse the appeal (subscriptions should be sent to 'The Cyprus Monuments Fund' at Lloyds Bank, 6 Pall Mall, S.W. 1).—EDITOR.

RACE AND CULTURE

Professor Childe's admirable protest against the prostitution of Prehistoric Archaeology as propaganda for political intolerance and his drastic cleansing of her pure features from the embellishments and false trappings which make a meretricious appeal to the German crowd, will be welcomed by all lovers of truth.*

He has called in aid as detergents the sciences of Heredity and Ethnology, themselves both undergoing the stern discipline of the laboratory, the former very young and not yet clear of her birth-stains, the latter already swaddled in old garments of somewhat doubtful quality.

The question however arises whether Professor Childe has not somewhat overstepped the limits of safety in accepting some of the

⁹ See MAN 1932, 249 and 1933, 134; also SYRIA, 1932, T. XIII, p. 345 ff.

* See ANTIQUITY, December 1933, p. 410.

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laboratory products as well-established and constant truths for universal application, and in stating them in such uncompromising terms as facts rather than present conclusions.

One may leave aside the bald statement 'Acquired characteristics are not inherited'; it is the prevailing belief, but negatives are hard to prove, and Professor Macdougall's rats cannot be altogether disposed of in a foot-note.

Professor Childe deprecates all idea of 'racial hygiene'—the improvement of man by breeding—because man is distinguished from all other animals by his very complex brain and nervous system and because he doubts if the qualities valuable in humanity are analogous to those valued in poultry. No doubt for a hundred reasons experiments in human breeding are impossible: but it is not clear that there is any 'false analogy' between men and stock. The higher mental and moral qualities that are desirable in man are dependent on the physical structure of his brain and other organs which, however complex, must be subject to the same laws of heredity (whatever they may be) as the physical qualities of stock. At the same time it is quite true that these very qualities are the ones that Professor Childe so admirably insists are far more due to the 'pooled experience' and 'social tradition' handed down by speech and writing, than to any inherited differences in the germ-plasm of the varieties or races of man. And these differences must have been much diminished by the inter-breeding between the races ever since the end of the Ice Age.

But it is Professor Childe's view of the whole question of associated characteristics that one finds most difficult to accept. He seems rather grudgingly to admit that there may be correlation between tallness, fair complexion and dolichocephaly on the one hand and shortness, darkness and dolichocephaly on the other, but evidently doubts if these may be taken as distinctive of the Nordic and Mediterranean Races.

He states, what is again of course quite true, that in man very little is yet known about the rules of dominance and hardly anything about the linkage of genes, and goes on to quote, without context, Karl Pearson, 'When we come to associate mental and bodily characters we get no correlation whatever of prognostic value'—and concludes rather triumphantly 'That statement should brand anyone who talks of racial mentality as a charlatan'.

Now that there should be no such thing as 'racial mentality', as ordinarily understood, is of course contrary to common observation all the world over: the statement must be meant to apply only to inherited

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characteristics excluding all post-natal influences—and even this cannot be proved to be true.

Experiment being impossible Ethnology in this field must depend on observation; and careful observation, be it remembered, by men who have had ordinary scientific training, is as valuable outside a biological laboratory as within it, for the finer mental characteristics cannot be weighed and measured; the only value of the laboratory here lies in the proper handling of the records. The common observation for instance that red hair and hot temper often go together can be made by anybody who has to do with children or horses—the value of the laboratory would be purely statistical. Every student of Archaeology, which depends entirely on observation, must agree to this.

Considering the present state of ignorance as regards the linkage of genes, the old medical dictum that, where the laboratory findings do not agree with the clinical observations they must give way, seems sound to apply to the branch of Ethnology concerned with the association of physical and mental qualities.

Now whatever may be the case in the much-mixed population of Germany we are fortunate in these Islands, in spite of quite as much mixture, in having some districts left where groups of population are still fairly uniform in their main physical characteristics and mental and moral traits, and at the same time present a contrast sharp enough to enable them to be distinguished one from another.

Take the three most obvious :—

(1) The tall, fair dolichocephalic type of eastern England, least mixed probably in the fishermen of Scandinavian origin on the coast. Their mental and moral characteristics are energy, initiative and self-reliance, fair mental ability though rather slow, with practical good sense and straightforwardness.

(2) The short, very dark, mesocephalic rather round-headed upland Welshman—clever, active, quick in mind and body, disputative, irascible, musical and somewhat unstable and unreliable.

(3) The dark type of western and southwestern Ireland of medium or rather low stature and rather slender build, with black, straight hair and high and very dolichocephalic skull—the long barrow type—inactive, unpractical, dreamy, poetic, idealistic and credulous, thoughtful rather than clever, and agreeable rather than self-reliant.

Crosses between well-marked individuals of (1) and (3) are to be seen in Ireland, and between (1) and (2) are common enough in England. The families (all of course subject to the same post-natal environment),

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are often large enough to produce one or two children with marked separate inheritance of the physical characteristics of only one parent. That such children more often than not inherit also the mental characteristics of that parent is, I think, a common observation of those who have opportunities of watching them—the parents themselves, the family doctor, the school teacher and, in adult life, their commanding officers and employers.

In fact I should venture to brand anyone who denies the frequent correlation between the mental and physical inheritance of such children as a bad observer.

Has the Hebrew no race-mentality that he has inherited with his prominent feature? Are we on the strength of Professor Pearson's statement to give up all observations on structural physiognomy?

The wide variety of physical types, with their correlated mentalities which have gone to make up the British people, has given us a great advantage in the rapidly increasing complexity of modern civilization by enabling us generally to find the right associated mental and physical characteristics to fit each fresh requirement—the right peg for the new hole.

But perhaps the Teutonic trait of self-satisfaction which is so well illustrated in Professor Childe's museum-invitation is an associated mental characteristic not entirely absent from our own national make-up.

J. P. WILLIAMS-FREEMAN.

THE HANGING BOWL IN IRISH LITERATURE

Mr C. E. STEVENS sends us the following amusing contribution to the 'Hanging Bowl' controversy, extracted from E. O'Curry's *Manners and Customs of the Ancient Irish*, vol. II, p. 56.

'At this time [circa A.D. 600], the Fileadh, or poets, were in the habit of travelling through the country . . . in groups or companies of thirty, composed of teachers and pupils under a single chief or master. In these progresses, when they came to a house, the first man of them that entered began to chant the first verse of a poem; the last man of the party responded to him; and so the whole poem was sung, each taking a part in that order. Now each company of poets had a silver pot which was called Coiré Sainnté, literally 'the pot of avarice', every pot having nine chains of bronze attached to it by golden hooks; and it was suspended from the points of the spears of nine of the company, which were thrust through the links at the other ends of the chains.

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The reason (according to the account of this custom preserved in the Leabhar Mór Duna Doighré called the Leabhar Breac) that the pot was called 'the pot of avarice' was because it was into it that whatever of gold or silver they received was put ; and whilst the poem was being chanted, the best nine musicians played music around the pot. . . . If their pot of avarice received the approbation of the man of the house in gold or silver, a laudatory poem was written for him ; but if it did not he was satirized in the most virulent terms that a copious and highly expressive language could supply'.

Mr Stevens adds that 'coiré' is to be translated 'cauldron' rather than 'pot'.

ANCIENT GLASS

Mr A. LUCAS writes :—'With respect to Mr D. B. Harden's most interesting and valuable article on "Ancient Glass" in ANTIQUITY, December 1933, p. 419, I venture to submit the following criticisms on two subsidiary points.

(1) The material termed *nitrum* by Pliny was not saltpetre (*i.e.* potassium nitrate) as stated (p. 419), but natron (natural sodium carbonate and bicarbonate). Although Pliny's story of the discovery of glass is certainly apocryphal so far as the date and place are concerned, the method given is a perfectly feasible one for accidentally making a small quantity of glass and it is by no means so fantastic as it is often represented to be. Many of those who criticize it adversely, wrongly assume that the sand must have been wholly siliceous and, therefore, that only sodium silicate (which is not glass) could have been formed ; whereas it is highly probable that the sand on the shore of Phoenicia was a quartz-sand containing a considerable proportion of calcium carbonate, as does much of the sand on the northern coast of Egypt. Such a sand fused with natron will produce soda-lime-silicate, or true glass, a small amount of which might have been formed even by the heat of an open wood fire. Saltpetre and sand could not have formed glass under any circumstances.

(2) The ancient Egyptians never employed vitreous glaze as a coating for clay as stated (p. 419). Such a glaze is only satisfactory on highly siliceous material and it will not adhere to baked clay (*i.e.* pottery) unless a layer of siliceous material is put on before the glaze. For pottery the glaze is usually either a lead glaze or a salt glaze, neither of which was used in Egypt in dynastic times. The body material of the ancient Egyptian faience was always powdered quartz and never

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clay ; and the faience is not glazed pottery, as it is so frequently called, but glazed siliceous ware, a very important distinction '.

EARLY MAN IN EAST AFRICA

Recent discoveries of the remains of early man in East Africa have attracted considerable attention, and we have only refrained from reference to them because they were involved in controversy. To some extent that is still the case ; but a committee of fully qualified experts has considered the evidence for the remains of *Homo Sapiens* at Kanam and Kanjera and reported favourably upon them. Under these circumstances we have decided to print a statement in the words of the discoverer, Dr L. S. B. Leakey, whom we wish to thank for his courtesy in allowing us to do so. The following note is simply his general label attached to an exhibition of the finds themselves, which was recently displayed at the British Museum. It sums up the facts so well that we asked Dr Leakey to allow it to be printed here.

A word should be added about these temporary exhibitions at the British Museum, which are a new and altogether admirable feature. We understand that the main object is to provide accommodation for a short period (one to three months) for archaeological material which is of topical interest but not necessarily the property of the Trustees. It is particularly desired to exhibit new material from English excavations and little known material from private collections. But 'foreign' exhibitions, such as this from East Africa and the existing one relating to Palestine, will also be included.

Dr LEAKEY says :—' Stone Age tools of the " Chellean " and " Acheulean " cultures have frequently been found in England and France, as in other parts of southwest Europe, and are well known. The typical tools of these cultures (together known as a " culture-group ") are " hand axes " (sometimes called " coups-de-poing "). This great " hand axe " culture with its two main divisions—Chellean and Acheulean—is first found in Europe in deposits formed soon after the beginning of the Pleistocene epoch, and it continues to the end of the " Middle Pleistocene ", having its final phases in the beginning of the " Upper Pleistocene ".

It has long been known that this great " hand axe " culture is found chiefly in the warm interglacial deposits of England and France, and is associated with the fossil remains of such warmth-loving animals as hippopotamus and elephant. It has also long been believed by many prehistorians that this culture came northward from some area which

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was warm even during the glacial periods. Over the greater part of Africa, and especially North and South and East Africa, tools of this culture are exceptionally plentiful, a fact suggesting that the Chelleo-Acheulean culture had its centre of dispersal in Africa.

Until recently a complete evolutionary series of culture-stages had not been found anywhere in one place, though by making a composite series on the evidence of typology the evolution could be more or less accurately guessed. For example we have long known that the Chellean stage was the forerunner of the Acheulean stage, and at certain sites the subdivisions of the Chellean and Acheulean have been carefully worked out.

The great importance of the Oldoway site depends on the fact that there for the first time at a single site we have established upon both stratigraphical and typological evidence the whole series of evolutionary stages of this great culture, from its very crudest beginnings to its most highly evolved tools.

The eleven main divisions of the evolutionary sequence are exhibited, and it is very likely that, when the whole series has been fully studied, some at least of these main divisions will require further subdivision.

Another discovery in connexion with the work upon the "hand axe" culture in East Africa is that of skeletal remains associated with two of the eleven main evolution stages.

Human remains of great antiquity have been found from time to time in different parts of the world, but the makers of the Chelleo-Acheulean culture have always eluded us (if we leave out of count specimens of doubtful authenticity). This does not mean that human remains as old as the Chelleo-Acheulean culture have not been found; indeed, early human remains such as the Piltdown and Pekin skulls *are* as old as the Chellean culture, and the Heidelberg jaw is at least as old as the Acheulean culture. But the Pekin skull is associated with a very early branch of the "flake culture" group and not with the "hand axe" culture; while the Heidelberg jaw comes from an area which was never inhabited by the "hand axe" people, though early forms of the Levallois type of "flake culture" come from that locality. Similarly, with regard to the Piltdown skull, we must remember that at the date to which it is attributed the Chellean culture was not the only one in England. Other very early cultures such as the "Cromerian" (a "flake culture") and the "Darmsdenian" (a pebble-industry) were also flourishing in England; so that although the Piltdown skull has

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often been considered as representing "Chellean" man, this is not absolutely proven.

Now from East Africa at a place called Kanam we have found a fragment of jaw of the makers of the pre-Chellean pebble-culture, while at Kanjera we have fragments of four skulls associated with the final stage of the Chellean culture ; so that at last we know something about the makers of the great "hand axe" culture'.

PERSEPOLIS

The special correspondent of *The Times* (20 November 1933), writes :—'What is considered to be the most important Achaemenean discovery of recent years has been made among the ruins of Persepolis by Mr Friedrich Krefter, assistant to Professor Herzfeld, the head of the Persian expedition of the Oriental Institute of Chicago University.

In the northeast and southeast corners of the Apadana of Darius the Great, which is 196 feet square, two cornerstones were unearthed on 18 and 20 September. The other corners were destroyed long ago. These cornerstones consist of flat stone boxes 45 cm. ($17\frac{1}{2}$ inches) square and 15 cm. (6 inches) deep. Each contained two foundation plates, one of gold and one of silver, 33 cm. (13 inches) square and $1\frac{1}{2}$ mm. thick in perfect condition. Each plate is engraved with the same inscription in three languages, Old Persian, Elamite and Babylonian, which translated reads :—

Darius, the Great King, King of Kings, King of the Lands, Son of Hystaspes the Achaemenid, Darius the King saith : "This is the kingdom over which I reign from the Sakas who dwell in the neighbourhood of Sogd as far as Kush from the Indus as far as Sparda, that has been granted unto me by Auramazda who is the greatest among gods. May Auramazda support me and my House".

Under each box were found four gold coins, staters of Croesus King of Lydia, and two silver coins ; one is an Aeginetan stater, the other is presumed to be Macedonian and bears a griffin. It is supposed that no example of a Daric was found because the cornerstones were probably laid early in the reign of King Darius, perhaps before he had struck his own coins'.

THE ANONYMOUS LIFE OF ST. CUTHBERT

This life is the one used by Bede and is therefore an early historical document of great value. It contains quite a number of place-names, and it was hoped that some of these might be used on the forthcoming

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Ordnance Survey Map of 'Britain in the Dark Ages'. Before this could be done, however, two things were required:—The original manuscripts had to be hunted down, and the place-names identified. There are at present only two printed editions of the *Life*, that published by the Bollandists (*Acta Sanctorum*, March, vol. III) and that of Stevenson, which is merely copied from it. During a visit to Paris I unearthed and consulted a 14th century MS. in the Bibliothèque Nationale (Latin 5289). I subsequently discovered that Mr Bertram Colgrave, of Hatfield College, Durham, is at work upon a critical edition of the *Life*, and was of course aware of the existence of this Paris manuscript and several other fresh manuscripts. With great generosity Mr Colgrave not only raised no objections to my publication of the following note, but also added to it his own critical comments, with the readings of some of the other manuscripts. It seems desirable to publish the whole as soon as possible, so that those with a knowledge of the topography of Northumbria may be able to study the names, and perhaps identify some of them. Meanwhile I can only express my thanks to Mr Colgrave, and hope that the publication of his researches will not be long delayed.

Below is printed in parallel columns the text from *Acta Sanctorum* and the expanded reading of Paris, Latin 5289 (my reading being checked and sometimes corrected by Mr Colgrave from a photostat in his possession):

Acta Sanctorum (Mar. iii).

- p. 118. iuxta fluuium, quod dicitur Leder.
- p. 118. Pergenti namque eo ab Austro ad flumen, quod Wir nominatur, in eo loco, vbi Leunckcester dicitur.
- p. 119. Coloderbyrig.
- p. 119. Alio quoque tempore de eodem monasterio, quod dicitur Mailros, cum duobus Fratribus pergens, et nauigans ad terram Pictorum, vbi Mudpialegis prospere peruenerunt.

Paris, MS. 5289 (Latin).

- fol. 49^b. iuxta fluuium qui dicitur ledir.
- fol. 49^b. Pergenti igitur eo ab austro ad flumen quod wir nominatur in eum locum qui concarestir dicitur.
- fol. 50. Colodesbuc.
- fol. 50^b. Alio quoque tempore de eodem monasterio quod dicitur mauros¹ cum duobus fratribus pergens et nauigans ad terram pictorum ubi dicitur niuduera² iregio prospere peruenerunt.

¹ *sic*, for *mailros* elsewhere (*u* for *il*).

² The 'e' written above the line.

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| <p>p. 119. sicut nobis vnus e duobus
Fratribus supra, nomine Tydi,
qui Presbyter est adhuc viuens
coram multis testibus indicauit.</p> <p>p. 119. iuxta fluuium Tesgeta.</p> <p>p. 120. a quadam muliere, quae dicitur
Kenspid, adhuc viuens.</p> <p>p. 120. quae dicitur Hruringaham.</p> <p>p. 120. insulam nostram, quae dicitur
Lindisfarne.</p> <p>p. 121. insula quam Hy nominant.</p> <p>p. 122. Ex quibus est, quod cuiusdam
Comitis Aldfridi Regis, nomine
Heunna, in regione, quae dici-
tur Henitis habitans.</p> <p>p. 122. ad vicum, qui Bedesfeld dicitur.</p> <p>p. 122. proficiscens ab Hagustaldese,
tendebat ad ciuitatem, quae
Vel dicitur. Mansio tamen in
media via facta est, in regione
vbi dicitur Alise.</p> <p>p. 122. in quodam vico, qui dicitur
Medilpong.</p> <p>p. 123. iuxta fluuium etiam quod dicitur
Opide.</p> <p>p. 123. Eo tempore quo Egfridus Rex,
Pictorum Regem depopulans.</p> <p>p. 123. sanctus Episcopus noster ad
ciuitatem Luel pergens.</p> <p>p. 123. secundum id quod Paga, ciui-
tatis Praepositus, ducens eos
reuelauit.</p> <p>p. 123. Hereberht, ab insulis Occi-
dentalis maris.</p> <p>p. 123. in parochia eius, quae dicitur
Osingadam.</p> <p>p. 123. fratrem quendam . . . qui ad-
huc viuens Pallistod dicitur.</p> | <p>fol. 51. Sicut unus e duobus <i>fratribus</i>
nobis <i>supradictis</i> nomine tydi
qui <i>presbyter</i> est adhuc uiuens
coram multis testibus indicauit.</p> <p>fol. 51. iuxta fluuium tesgeta.</p> <p>fol. 51^b. a quadam muliere <i>que</i> dicitur
coesuid adhuc uiuente.</p> <p>fol. 51^b. <i>que</i> dicitur runingaha.³</p> <p>fol. 51^b. insulam <i>nostram</i> <i>que</i> dicitur
lindisfarnee.</p> <p>fol. 52^b. insula <i>quam</i> hii nominant.</p> <p>fol. 56
& 56^b. ex quibus est <i>quod</i> cuiusdam
comitis aldfridi regis nomine
hemini in regione <i>que</i> dicitur
hintis habitans.</p> <p>fol. 56^b. ad locum qui bedesfied dicitur.</p> <p>fol. 56^b. proficiscens ab hagustaldense
tendebat ad ciuitatem <i>que</i> luel
dicitur. Mansio tantum in me-
dia uia facta est ei in regione <i>que</i>
dicitur echse.</p> <p>fol. 57. in quodam uico qui dicitur
mediluong.</p> <p>fol. 57. iuxta fluuium etiam qui tuuide
dicitur.</p> <p>fol. 57. eo tempore quo ecfridus rex
pictorum regionem depopulans.</p> <p>fol. 57. <i>sanctus episcopus</i> noster luel
ciuitatem pergens.</p> <p>fol. 57. secundum id quod uacha ciui-
tatis <i>prepositus</i> ducens eos
reuelauit.</p> <p>fol. 57. Herebertus ab insula occiden-
talis maris.</p> <p>fol. 57^b. in parrochia eius <i>que</i> dicitur
osingadam.</p> <p>fol. 57^b. <i>fratrem</i> quendam . . . qui
adhuc viuens ualhstod dicitur.</p> |
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³ No sign to indicate omission of final 'm':

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Mr Bertram Colgrave's comments are as follows :—

Lat. 5289, fol. 50^b. (My original reading was NUIDUERA ; Mr Colgrave says :—) I am not convinced that the MS. reads Nuiduera. All the other MSS. have Niuduera, and although it is impossible to tell with certainty from my photostat, I *think* it is Niuduera. All the MSS. in the corresponding passage in the Life by Bede read either Niduari, Nidwari or Niduari.

Fol. 51^b. I have carefully examined my photostat of Paris 5289 and I am now convinced that it reads RUNINGAHA. The first two minims are slightly lower than those which follow, and the fifth minim has a decidedly thicker top. The Treves MS. (Treves 422) reads runingaham, and so also do the marginal notes to Bede's Life in Bodley, Fairfax 6 (late 14th century). The marginal note in Bede's Life, Brit. Mus. Harl. 4843 (15th century) reads nuningaham, due I believe to the fact that the scribe, who apparently copied Fairfax 6, mistook R for N. The marginal note in Bede's Life, Trin. Coll. Camb. O. 3.55 reads hruningaham. The two St. Omer MSS. read hruringaham, while the Brussels and Harl. 2800 omit it. Arras reads hruringaham, the 'h' written above.

Fol. 56. HEMINI. I feel fairly certain that the 3rd and 4th letters are m, i. Treves has hemini quite clearly, Brussels and Harl. omit. The St. Omer MSS. and Arras all read hemma. The marginal note in T.C.C. O. 3.55 is, I think, Nomen comitis hemna, but my photostat of this MS. is not clear.

Fol. 56 HINTIS. Treves and Paris have hintis ; the St. Omer MSS. and Arras have kintis. The marginal notes in Fairfax, Trin. Coll. Camb., and Harl. 4843 have hintis.

Fol. 56^b. ECHSE. Treves has Echse ; the two St. Omer MSS. and the Arras MS. read Achse, so this was probably the correct form.

Fol. 57. Treves and Paris have TUUDE. Brussels and Harl. omit. Paris is the only MS. to read qui for quod. My impression of the Paris scribe is that he was somewhat careless. B. COLGRAVE.

It only remains for me to add to this joint note a list of identifications :—

LEDIR=R. Leader, a tributary of the Tweed, which it joins at Old Melrose, Roxburghshire.

WIR=R. Wear, Durham.

CONCARESTIR=Concacæstir ; Chester-le-Street.

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COLODESBUC=Coludesburh, Urbs Coludi, Caer Golud ; St. Abb's Head, Coldingham. (A note on this name and site will be published in a later number).

MAUROS=Mailros ; Melrose.

NIUDUERA IREGIO=Niuduera regio ; unidentified, but no connexion with the R. Nith, Dumfriesshire, and probably on the East Coast of Scotland. See W. J. Watson, *Celtic Place-names of Scotland*, 1926, 175-7.

fol. 51. TESGETA=Tefgeta ; R. Teviot, a tributary of the Tweed which it joins at Kelso, Roxburghshire. Compare Tefegedmuthe, *Simeon of Durham* (Rolls ed.) I, 201.

fol. 51^b. RUNINGAHA(M). Unidentified.

fol. 51^b. LINDISFARONEE=Lindisfarne.

fol. 52^b. HII=Iona.

fol. 56. HINTIS ; unidentified.

fol. 56^b. BEDESFIED ; unidentified.

fol. 56^b. HAGUSTALDENSE=Hexham.

fol. 56^b. LUEL=Carlisle.

fol. 56^b. ECHSE (or Achse) ; unidentified, but clearly a name applied to a district between Hexham and Carlisle.

fol. 57. MEDILUONG ; unidentified, but compare *Simeon of Durham*, II, 41, 52, 376 (Methel Wongtune), and Mawer, *Place-names of Northumberland and Durham* (Cambridge, 1920), p. 142.

fol. 57^b. OSINGADUM ; unidentified.

fol. 57. TUUIDE=R. Tweed. This is the oldest mention of the name.
O.G.S.C.

SCANDINAVIAN CREMATION-CEREMONY

The bearing of the account of the cremation-ceremony, printed on pp. 58-62 of the present number, on problems of British barrow-burial will be obvious. When describing the excavation of a Bronze Age burial-mound at Roundwood in Hampshire I quoted the account of the funeral of Patroklos (*Proc. Hants. Field Club* 1927, IX, 190-2) by way of illustration. The erection of a wooden pole in the middle of the barrow, as described on page 62, is exactly paralleled by the remains of a central pole found in a barrow of the Late Bronze Age at Plaitford, Hants. (*Antiquaries Journ.* 1933, XIII, 425).—EDITOR.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

‘ From a study of over two thousand sepulchral inscriptions recording ages, it appears that the average expectancy of life among the ancient Greeks must have been only about 29 years, as compared with about 55 years in our own country today for males and about 57 years for females ’. (Bessie E. Richardson, quoted in *Amer. Journ. of Arch.* xxxvii, 116: a review of her book will be published later in *ANTIQUITY*).



The second meeting of the International Association for the Study of the Quaternary period in Europe was held at Leningrad in September 1932. Describing the exhibitions of which several are to become permanent, a well-known Polish archaeologist writes :—‘ They are evidence of an achievement that no European country can match. They are designed to enlighten those who seek instruction ; and, looked at from this point of view, it must be admitted that they achieve their purpose ’. (*L'Anthropologie*, 1933, XLIII, 549).



The Trustees of the British Museum have acquired one of the oldest editions of the Bible for the sum of £100,000 (one hundred thousand pounds).



Sir George Macdonald has lost no time in extracting from the Falkirk hoard a number of conclusions of historical value. The hoard, found last August, is the largest of its kind discovered in Scotland, and consists of nearly 2000 silver denarii. The dates range from 83 B.C. to A.D. 230. The hoard began to be formed in the first quarter of the second century A.D. and it represents the family savings of four generations. It confirms the already known fact that the dwellers in Caledonia

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used Roman denarii as a native currency from the time of the Agricola conquest down to a date long after the final departure of the Romans from Scotland. (*The Scotsman*, 12 December 1933).



Excavations on the kopje of Mapungubwe, northwest Transvaal, subsidized by the Government and assisted by air-photography, have been very successful: but we are not told any details. (*African World*, 28 October 1933).



Those who imagine that North America has nothing to show the archaeologist should visit the ruins of Chetro Ketl, New Mexico, belonging to the period A.D. 993-1116. The stone masonry alone is marvellously good, and is evidence of no small degree of mechanical skill. (*Ill. London News*, 2 December 1933).



Causeway-roads apparently resembling those made by the Romans connected the Mayan cities of Yucatan. One such recently explored starts from a small pyramid at Yaxuna and runs almost perfectly straight for 43 miles. In width it varies from 30 to 34 feet, in height above the adjacent ground from 2 to 8 feet. It appeared that walls had been built across the road, as if to bar it against enemies. (*Nature*, 4 November 1933, summarizing the News Service Bulletin of the Carnegie Institute of Washington, vol. III, no. 9).



In the *British Weekly* (2 November 1933), Dr G. G. Coulton replies to a review of his book, *Scottish Abbeys and Social Life*, in the *Antiquaries Journal*, October 1933, pp. 483-6. The point at issue is, he says: What were the monks contributing to religious and social life during the last four or five medieval centuries?



A new cave has been discovered at Chou-kou-tien, where *Sinanthropus* was found. The account of its contents has evidently been garbled in transmission from China, but the finds must be interesting if they are anything like the description. (*Sunday Referee*, 12 November 1933).

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On Sutton Common near Burghwallis, not far from Doncaster, Yorks., are two adjacent earthworks. They consist of enclosures of unequal size, defended by ramparts, in some parts multiple. The superficial appearances were not unlike those of Roman camps, an opinion which seemed to be confirmed by the presence of a *titulus* (defensive bank and ditch) in front of one entrance, though rather far from it. The earthworks are marked on the Ordnance Map, but nothing definite is known of them and their age is quite uncertain. After seeing them during the winter of 1932-3 the Editor wrote to a correspondent in Yorkshire, with the result that a fortnight's digging was done there last summer by Professor Whiting, of Durham University, and Miss Kitson Clark.



The results so far are insufficient to prove the age. The larger earthwork was examined, and it was found that the earthen rampart had been preceded by a palisade of stakes. Traces of occupation were found inside the rampart, and remains of what is regarded as a rubbish pit were reserved for future examination. No confirmation of the Roman camp hypothesis was found, and both the excavators and others who saw the excavations are definitely against it. Work is to be resumed next summer, and it is much to be hoped that datable materials will be found.



The Eskimo origin and manufacture of certain carved stone lamps of quite excellent design has been proved by excavations at a village site in Kachemak bay, Cook Inlet, Alaska, conducted by the University Museum, Philadelphia, and the National Research Council. (*Ill. London News*, 21 October 1933, p. 655).



'About 4 years ago some very beautiful bronze objects, inlaid with gold and silver, malachite and turquoise, came into the hands of Chinese antique dealers in Honan, together with exquisitely carved jades which surpassed anything yet known in Chinese jades. They were traced to their source, which was found to be a group of eight tombs on the site of Old Loyang in West Honan, which was the capital of the Chou Dynasty during the latter half of its history, and is known as the Eastern Chou (770-249 B.C.)'.

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The tombs were in pits, uncovered by any mound, and were revealed by a caving-in of the soil. They were cleared by 'professional tomb-excavators' intent on gain, and the results were of course, archaeologically disastrous. Some idea of the character of the finds may be gathered from the fact that 'three small pieces of jade fetched £3,400 and one gold and jade object was said to have been sold ultimately for £5,000', prices rightly described as 'most exorbitant'.



An excellent account of the tombs is published in the *Illustrated London News* (28 October and 4 November 1933) by the Rt. Rev. William C. White, Bishop of Honan and head of the Canadian Church Mission. 'A preliminary record is now being published under the title "Tombs of Old Loyang" (Messrs Kelly and Walsh, Ltd., Shanghai) which describes the tombs and some 500 of the objects obtained from them. The Royal Ontario Museum of Archaeology in Toronto, where hundreds of these objects are deposited, has allocated a gallery specially to house these objects'. But who will go and excavate the tombs and retrieve such archaeological material as may remain unsabotaged?



In the note on 'Catguoloph' on page 479 of the December number of *ANTIQUITY* an instance of the place-name Wallop which could not at the time be located was referred to. This can now be given as that of 'Willop', applied to two sewers on the level ground at the foot of Lympne, half a mile south of West Hythe (Kent 74 sw). The 'i' makes any connexion with Guoloph most improbable. No early forms are available.



The earliest name of the region of Gwynedd (Northwest Wales) occurs in the Life of S. Samson in the latinized form Venetia (Codex Paris, Latin 3789, folio 145; '11th century'). The Life itself is very early, and the form quoted is in obvious agreement with this date, since spellings with gu- (guenet, guined, guenedotia) occur quite early. The passage in question is as follows:—'Et mater eius anna nomine deuenetia *prouincia quae proxima est eidem demetiae exorta est*'. Demetia whence Amon, Sampson's father came, was of course Devet or Southwest Wales.

Some Recent Articles

This list is not exhaustive but may be found convenient as a record of papers on subjects which are within the scope of ANTIQUITY. Books are occasionally included.

Races, peoples and cultures in prehistoric Europe, by V. Gordon Childe. *History*, October 1933, XVIII, 193-203.

A criticism of fundamental concepts in the light of existing knowledge.

The character of the Anglo-Saxon conquests ; a disputed point by R. V. Lennard. *Ib. id.* 204-15.

A first study of the craniology of England and Scotland from neolithic to early historic times, with special reference to the Anglo-Saxon skulls in London Museums, by G. M. Morant. *Biometrika*, July 1926, XVIII, 56-98.

This is the first general application of Professor Karl Pearson's coefficient of racial likeness to British specimens ; the results are revolutionary, and the paper deserves far fuller consideration than is possible here. We hope before long to provide our readers with a study of neolithic skulls on these lines.

A preliminary classification of European races based on cranial measurements, by G. M. Morant. *Ib. id.* December 1928, XX^B, 301-75.

Excavations in the Dutch *terpen* 1928-31. Published by J. B. Wolters, Groningen. 97 pages, 44 illus. [In Dutch].

Owing to difficulties of language we are unable to review this book as it deserves. The excavators deserve a word of high commendation for their admirable technique, nor is it lessened by the fact that the soil is good, and almost invites good results of itself. The earliest *terpen* are pre-Roman ; but the majority are later. The excavators register a new advance in technique by chemically analysing the dung forming the floors of the rooms, and so discovering which animals (including man) were housed in which rooms. The publication of this book is evidence of the very high standard of archaeological research achieved in Holland.

The Quaternary Glaciation of England and Wales, by K. S. Sandford. *Nature*, 2 December 1933, p. 863.

A survey of material collected for the Geological Congress to be held in Washington in 1934, intended to provide all and sundry, from climatologists to

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archaeologists, with a non-party statement of the geologists' position. It is deliberately written as a sober and conservative document, but is all the more useful for that at the present stage.

Early Cross-slabs from the Faeroe islands, by P. M. C. Kermode. *Proc. Soc. Ant. Scot.* 1931, LXV, 373-8.

These crosses in a Celtic tradition are compared with one from Greenland 'not earlier than the thirteenth century'. Their exact date, however, cannot be determined with certainty.

Sur le tribulum, par G. H. Luquet and P. Rivet. *Mélanges Iorga* 1933, 613-38. [Review in *L'Anthropologie*, 1933, XLIII, 598-9, illustrated by a photograph, taken by one of the editors outside a shop in Tunis, rue Bab bou Saadoun].

Megalithic remains in South Sumatra, by A. N. J. Th. à Th. van der Hoop, translated into English by Shirlaw. W. J. Thieme, Zutphen, Holland. [Review in *L'Anthropologie* 1933, XLIII, 596-7].

Bulletin de la Société de Préhistoire du Maroc, 1932, nos. 1, 2.

Number 1 is filled by an article by M. Jean Gattefossé, entitled 'L'Atlantide et le Tritonis Occidental'. The name of Atlantis is a danger-signal to the wary, and they will find here just what they would expect, a farrago of mythology, pseudo-science, etymology run mad, and pure untrammelled imagination. A typical etymology is that of Iberian from Hyperborean by way of a hypothetical Iberborean. The Sileni, who are described as autochthonous to Atlantis (situated it should be explained, in the western Sahara) 'are identical with the Carians and, if they did not originate in the American continent, they had at least had continuous relations with America from a very remote time; they had red hair'. Connoisseurs of this particular form of lunacy should not miss this article.

Number 2 contains two informative and well illustrated articles on palaeolithic sites, 'Quartzites taillés de la région cotière de Rabat-Maroc', by R. P. H. Koehler, and 'Station mousterienne à quartzites du plateau de la carrière Martin, à El Hank'.

Excavation of 'Atlit, 1930-31: the southeastern cemetery, by C. N. Johns. *Quarterly of the Department of Antiquities in Palestine*, vol. II, 1932.

The excavation of the medieval seaport which lay under the Pilgrims' Castle at 'Atlit brought to light a Phoenician settlement. Rock-hewn shaft-graves have been discovered, revealing evidence of occupation lasting from about 900 B.C. down to the Hellenistic period. The culture was an eclectic combination of Greek, Egyptian and Oriental elements. These graves form only a part of the cemetery and the report is provisional.

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Deux gisements extrêmes d'Iberomaurusien, by E. G. Gobert and R. Vaufrey. *L'Anthropologie*, September 1932.

A good general account of the Upper Palaeolithic, or Mesolithic culture which extended all along the northern littoral of Tunis and Morocco, and appears to have flourished alongside the more southerly Caspian, and to have developed out of an indigenous Mousterian culture. It is distinguished by the large number of microliths found. The name *Iberomaurusian* was coined at a time when this culture was believed to have close affinities with those of southern Spain, affinities which are now considered much more doubtful; and the authors of this article suggest *Oranian* as a substitute.

L'ANTHROPOLOGIE, June 1932.

The number contains (1) an illustrated account of two palaeolithic rock-shelters at Gorge-d'Enfer in Dordogne, by D. Peyrony, which were excavated in 1863 and 1892. (2) An account of the analysis of pollens in peat-bogs, and its application to the study of the Quaternary Age and of Prehistory, by Georges Dubois. Some of the results of the analysis, especially the fixing of the succession of types of afforestation in different parts of Europe in the post-glacial period, are stated. (3) A note by the editor, M. Vaufrey, pressing for the scheduling as historical monuments of those prehistoric sites in which France is so rich, and which have too long been allowed to be exploited for profit. M. Vaufrey argues that a part at least of the remaining untouched sites should be left 'sealed' for posterity, and that what is now needed is the adequate publication of the enormous amount of prehistoric material excavated during the past 50 years. There is a concise account of the actual state of the law in France on the subject of excavation in general. (4) Continuation of studies of palaeolithic stratigraphy by the Abbé Breuil and Professor Koslowski: basse terrasse de la Somme.

University of Liverpool: Annals of Archaeology and Anthropology. Vol. XIX, nos. 3-4, 1932.

Professor J. Garstang's report on his excavations at Jericho deals mainly with the Bronze Age necropolis, where 24 tombs have been opened (mostly middle Bronze Age). Over a thousand pottery vases, many of them new types, have been recovered. The tombs of the middle Bronze Age, and early later Bronze Age are approximately dated by a series of 80 scarabs, mostly of Hyksos date, but some of the early XVIIIth Dynasty. The evidence points to a total interruption in the life of Bronze Age Jericho about the end of the 15th century B.C., the next trace of occupation being dated about 1200 B.C.

A fully illustrated report on the British Museum excavations at Nineveh during the season 1930-31, by R. Campbell Thompson and R. W. Hamilton, shows that the Temple of Ishtar is now certainly proved by the discovery *in situ* of two inscriptions of Ashur-nasir-pal, recording his repairs to the temple. The temple is now known to have existed as far back as about 2450 B.C. and the names of eight kings who repaired it from then onwards are known, down to its destruction in 612 B.C.

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The Fort at Caersws and the Roman Occupation of Wales, by T. Davies Pryce, F.S.A. *Montgomeryshire Collections* (Powysland Club) 1931, XLII, 17-52.

As yet no full account of Professor Bosanquet's pre-war excavation of the important Roman fort of Caersws has been published, and this article is particularly welcome. It deals mainly with the Samian ware found on the site and includes a detailed description of the more important pieces. The evidence from Samian indicates an intensive occupation during the last quarter of the 1st century and the first decade of the 2nd century. There appears to have been a definite depletion of the garrison at Caersws during the later years of Trajan's reign, but it is possible that occupation of some kind was prolonged into the reign of Septimius Severus. The latest identifiable coin suggests a further habitation of the site down to the end of the third quarter of the 3rd century.

A sketch of Roman Powysland, by F. N. Pryce. *Montgomeryshire Collections* 1932, XLII, 86-113.

A useful summary of the state of present knowledge of the Roman occupation of Montgomeryshire. It emphasizes the need of excavation of known fort-sites and the identification of Roman roads. The series of coins found in this area away from a few large settlements does not begin until the 2nd century, and with one exception there is no coin later than Constantius II (d. 361). The native hill-top camps in this county, which are very numerous, have hardly been excavated at all, so that the extent of Romanization of the native population remains quite uncertain.

Etruscan Art—the painted Urns of Chiusi, by Dr Doro Levi. *The Times*, 3 February 1934, pp. 13-14.

An account of recent excavations at Chiusi, midway between Rome and Florence, where there is an immense necropolis of Etruscan tombs. It was first discovered in 1818 and excavations were later carried out by Alessandro François, but for nearly 50 years the site was neglected until in 1926 Dr Levi was asked by the Reale Soprintendenza delle Antichità dell' Etruria to renew investigations. Among the most important of the tombs is one known as 'del Colle', with mural paintings of the early 5th century B.C., and another at a place called 'Le Tassinaie' is considered to be of the 2nd century. In the latter was found a magnificent painted terra-cotta sarcophagus, now in Chiusi museum. A quantity of urns, carved in low relief, of the 3rd century B.C., were found in the tomb called 'the Grand Duke' and another collection in one known as 'the Pellegrina'.

The museum contains a fine collection and Dr Levi describes some of the most important of the objects. He says that the museum 'offers a synthesis of the whole development of art in and around Chiusi, indisputably the highest and most varied left by the Etruscan civilization'.

Reviews

HOMER AND MYCENAE. By MARTIN P. NILSSON. *London: Methuen, 36 Essex Street, W.C. 2, 1933. pp. 298, 52 illustrations, 4 maps. 21s.*

Professor Nilsson has produced a great book—almost. I say almost because there are some vital omissions, and because he treats some of the views with which he deals (and he summarizes many hundreds of theories and hypotheses) in so summary and abrupt a fashion that he has clearly not attempted to understand them. But his book will remain one of the most important contributions to Homeric studies produced for many years.

He examines first the alternative literary views on Homer and the Homeric poems. This he does with brevity, common sense and great skill. Next he assembles the evidence, mainly archaeological, which enables us to reconstruct the history of the Mycenaean Age as opposed to the Cretan world. Having assumed in the preceding chapter that the only point on which all disputants were agreed was that there were pre-Homeric songs which Homer used in composing his poems, he goes on to exhibit that world in which those songs grew up. Proving that the mainland inhabitants of Greece were, soon after 2000 B.C., settled and blended with a non-Greek native population, and speaking primitive Greek, he then shows how the Minoan intrusion of culture about 1600 marked a new break. But he carefully points out how the Mycenaean culture that developed from this new admixture of elements was wholly distinct in character from Minoan. Here he restates a view already expressed by others but he restates it with peculiar clarity. He also stresses the northern characteristics of the Mycenaean version of Aegean culture. To supplement this conclusion he adduces the evidence of dialects and classifies them chronologically. Here the rôle of the Ionians as the earliest Greeks with the earliest dialect, and the first Greeks to be squeezed out of their homes by successive arrivals of Greek immigrants from the north, is important. He then sketches the history of the 'foreign policy' (if we may call it such), of the Achaean empire, and shows how the prominence of Troy was due to the fact that the Trojan expedition was the last of the great raids, and so the one most likely to survive in memory. The author next attempts to analyze the datable elements in Homer. Here he is on dangerous ground and his conclusions are not always reliable. But he makes the important critical point that scholars have sought too often to make the evidence square with their pre-conceived theories, and he shows how various material objects mentioned in the Homeric poems have been attributed to periods from the Minoan to the Archaic Greek with equal success or failure. In the matter of the Phoenicians he is not so satisfactory, and his own views seem also to smack of pre-conceived theorizing. Dealing next with the mixed dialects of the poems themselves he gives an admirable survey of the dialectal strata and concludes with the sound but startling decision that 'there are words in the Homeric poems which go back to the Mycenaean Age'. Homeric language, he maintains, goes back into remote times and archaisms were preserved through a long-established epic technique

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which drew from many ancient sources. Thus, at last, we are able to equate the linguistic archaisms and survivals with the archaeological, to which they are strictly parallel. A chapter on epic poetry in other lands covers ground already known, and there is nothing new to add of great importance. But the Greek Epics are to be found originating in 'the glorious Mycenaean Age' as songs in praise of contemporary men and events. Some topics did not survive, except by casual mention, down to the time of Homer. The epic on the War of the Seven Against Thebes, a war between elements within the Mycenaean world, did not survive. But the bulk of the songs wandered, after the dispersal of Greek peoples at the close of the Mycenaean Age, to Asia Minor. Renewed settled life led to an increased demand for poetry and to a renaissance of epic. A great poet and personality now by good fortune appeared who 'infused new life and vigour into epic poetry, putting the psychology of his heroes in the foreground. Therefore Greek epic excels all other epic'. Here, in short is Homer. The conflict of Unitarians and Separatists is rendered unnecessary. For both parties might concede a Homer of this kind. He is both personality and tradition. The Homeric poems were both written by Homer and by many ancient bards. But Professor Nilsson confines his conclusion to the author of the *Iliad*. 'Another great genius appeared' he explains, 'the poet of the *Odyssey*, whose latest elements refer just to the Orientalising Period and the Age of Colonisation'. So, in effect, Professor Nilsson has welded Homer again into one and then split him into two. In the place of Unity and Separatism we now have Dualism. On the whole a plausible and not unsatisfactory conclusion.

The book bristles with contentious matter. I will take the most contentious first—the conclusion just referred to that Homer is double. Here the author seems to be committing just that sin for which he lashes so many others. He is convinced that the *Odyssey* is later in style and subject, and so is driven to make every incident in it that seems early belong to the latest possible date. The *Odyssey* he maintains, deals with 'the adventures of merchants and colonists during their sea-voyages' of a time when Greeks were beginning to oust Phoenicians from the sea. There is no hope, he says, of rediscovering Odysseus' palace on Ithaca. To this end he maintains that the cycle of Odysseus is post-Mycenaean, although Odysseus himself goes back to the Mycenaean age. Scheria, to Professor Nilsson, and the thirteen kings of the island, represent a very late stage of political development. Alkinoos and his palace belong to a date when the aristocratic state of early Hellenic Greece was developing. But supposing Professor Nilsson had derived the impression that the *Odyssey* was contemporary with the *Iliad*, he could equally well have maintained that Scheria was a memory of Crete, its palace, town, harbour, sailormen and nautical setting a survival from the great days of Cretan hegemony. The thirteen kings would resemble the independent kinglets of Phaestos, Mallia, Knossos and other Cretan sites—for here too is a foretaste of Greek Aristocracy!—the evident matriarchal rule of Queen Arete (which the author conveniently ignores) would correspond to what we believe to have been Cretan custom. The tale of Nausithoos, which he does not mention at all, would preserve the story of troubles between Crete and the mainland, Nausicaa would be any Cretan beauty and her home a Cretan-Mycenaean palace. Instead Professor Nilsson places the whole Scherian setting in post-Mycenaean times just because he wants to. I think I have made it clear that Scheria can equally well and equally unconvincingly be made pre-Mycenaean. But that is one of the consequences of building up a perfect building too rapidly. Some of the bricks tend to crumble,

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especially if they are older than they seem. The author's omission of all discussion of the survival of Cretan nautical tales of, or memories of, Cnossos is serious. Few people believe today that Phoenicians in Homer represent Cretans. But the Cretans may be there all the same, hidden under some other bushel.

Another omission. The Achaeans, their history and language and origin form one of the most important contributions in this book. Yet while the author states how they were 'a people immigrating from the north' and shows how their knowledge of amber, their use of boars'-tusk helmets, and their manner of life was northern, he makes no sort or kind of attempt to trace their northern home or even to give the vaguest hint of their European habitat. In a book in which the Achaeans take pride of place this is a most serious blemish. But the reason is evidently that the Professor has made no study of central European archaeology. If he had he would surely have noticed, not the miserable boars'-tusk pendants of neolithic Olynthos, which he takes to be the northern prototypes of Mycenaean boars'-tusk helmets, but rather the helmet-boss in bone and perforated tusk-laminae from Vattin in Hungary, which provide the perfect prototype in time and place for the Mycenaean usage. Transylvania again provides innumerable parallels for the Mycenaean usages in the Bronze Age. They are not mentioned. The trouble is that Prof. Nilsson's farthest north is several hundred miles too far south. I shall look forward to seeing his analysis of central European archaeological material in its Mycenaean context, though his handling of the Olynthos material does not encourage me to think that he will master it easily.

A further omission is a full discussion of the alternative theories of the 'two-dynasty' view of the Tholos tomb controversy and its rival the 'single dynasty' view. In a book of this nature that problem ought to have been discussed in full with genealogical evidence fully examined. The author may complain that this was no part of his thesis. But the title of his book leads one to expect a discussion of all outstanding matter of importance that concerns Mycenae.

In another matter the archaeological evidence is strained. The fact that no inscribed tablets, and very little writing at all, is found on the mainland is taken to prove that Cretan influence on the mainland was not so potent as the barbarian nature of the mainlanders. A great and important conclusion—but based on negative evidence alone. One *cache* of tablets found, and it will fall to the ground.

There are many minor matters. The already famous Mycenaean inscription of Asine (p. 78) as originally transcribed by Persson had the name Πασσιδά Φωος. Prof. Nilsson without explanation gives here the transcription Πασσιδά Φωος. The difference of course, is the difference between an Achaean 'Arcado-Cypriot' dialect and Dorian, consequently a difference of some centuries in dating. If Doric, then the Professor's thesis falls to the ground. A comparison of Persson's transcription with Nilsson's shows that the sign in question has been altered from the Cypriot *to* into the Cypriot *se*. No doubt the alteration is sound (even if the sign in the inscription is thoroughly ambiguous), but there should have been a very precise explanation of the change, which is just thrown at our heads and given in a footnote. I do not feel happy about this very scratchy inscription. It may as well be Minoan as Greek, if its signs can be reinterpreted so easily. Again Prof. Nilsson's archaeological methods give me pause.

On p. 261 the author maintains that the Mycenaean date of the Bellerophon myth 'is proved by the representation of the Chimaera on a glass plaque from Dendra'. Examining the photograph of the plaque in question once more, I feel the gravest

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doubt in identifying it as a Chimaera, or indeed, as any recognizable beast at all. Archaeological proof must be more rigid than this.

The following errors and misprints are noted : p. 20, 'he' omitted from the first line ; p. 34 'kind' for 'kinds' ; p. 75, 'fig. 32' should be 33 ; p. 80 'Myceaeen' ; p. 81 'fig. 11' for 13 ; p. 82 'fig. 51' for 52 ; p. 95 'Clytaemestra' ; p. 140 'corsleti' ; the reference to the wealth of Thebes attributed to 14th century on p. 158 and 15th century on p. 157 ; p. 188 'each other' for 'one another's' ; p. 190 n. 'Neuphilologische' ; p. 209 'centring around'. But there are many splendid things in this book and many concise solutions of old difficulties. Thus the acute judgment on the 'shield of Achilles' which warns us not to expect epic poets to give us photographs of works of art (p. 152) ; the attribution of the Homeric poems in their primitive state to Argolis-Boeotia (p. 177) ; the description of the mode of Achaean occupation in Greece and the suggestion that in the Persian kingship we can see a late survival of the Achaean kingship, natural enough in an Aryan folk. These are but a few of the gleanings. The book is a rich harvest of material from which every Homeric scholar can profit.

STANLEY CASSON.

AN ECONOMIC SURVEY OF ANCIENT ROME. *Edited by TENNEY FRANK* (in collaboration with other scholars). *Volume I : Rome and Italy of the Republic. The Johns Hopkins Press, Baltimore, 1933. pp. xiv, 431. 16s.*

This is a work that should be sure of a warm and ready welcome. The economic factors in history have sometimes been underestimated or neglected : our generation is being taught by painful experience to assign to them their just value. And not only are those factors important, but they are also, in many cases, obscure and difficult to analyse. They demand special study—and special study on the lines suggested by this book, that is to say, study based on actual sources rather than on pre-conceived general hypotheses.

This first volume, which is given up to Rome and Italy of the Republic, is very suitably undertaken by Professor Tenney Frank himself, who has proved his capacity for the task, not only by his own more general studies of Republican history, but also by a number of successful and penetrating economic researches. The material is arranged in the first place chronologically, in an introduction and five chapters, covering between them six different periods. Inside each section, there is a rough classification by subject, which is varied to meet the needs of each particular case. At first sight, one might be tempted to ask for a more rigid framework ; but, probably, after reading through the book, we shall admit that the author's arrangement is excellently adapted to the unevenness and irregularity of his material.

It is a serious problem in an economic survey to know what to include and what to omit. Here Professor Frank has made his decisions wisely and liberally. He has introduced only so much general history as is really necessary for the following of his argument, but he has interpreted the words 'economic history' generously. In his first period (before 387 B.C.) he gives us some idea of the relations of early Rome to Latium and to foreign powers, he quotes the Twelve Tables for all references that bear, even remotely, on economics, and outlines a 'Servian Constitution' of the State after 444 B.C. In chapter I (387-264 B.C.) he discusses foreign commerce in the light of the second treaty with Carthage, and suggests how architecture and art may give us some indications as to the general trend of Roman development. Chapter II (264-200 B.C.) is rich in detail of a definitely economic stamp : the estimates of the budgets

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of the 1st and 2nd Punic wars are of particular interest. The extension of colonization in Italy comes in for interesting discussion. In chapter III (200–150 B.C.) the author has a material of uncommon value in the shape of the lists of booty, so generously recorded by Livy. Basing himself on these and kindred documents, he is able to project a very interesting and suggestive scheme of the public finances of the period. Here, even apart from the author's own results, his collection of material is certain to prove most valuable. The last two chapters (150–30 B.C.) are the richest and, at the same time, the most involved. A very considerable amount of general information of various kinds has been preserved and, in an *embarras de richesses*, we may be tempted to wish that Professor Frank had allowed himself to arrange and interpret rather more than he has done. But, perhaps, he has been right, even here, in holding to his original plan of offering evidence rather than hypothesis.

In a book as rich in detail as this is, points of criticism are bound to occur. In the earlier chapters, the author will seem to some too conservative. He uses the first treaty between Rome and Carthage as reliable evidence for the late 6th century B.C. He cannot indeed leave the 'Servian' constitution in the 6th century, but suggests placing it in the late 5th. His treatment of the early coinage is perhaps a little disappointing. The study of the subject is admittedly in a state of transition, but it is becoming increasingly certain that Haeberlin's hypothesis, based essentially on an estimate of probabilities (cp. here, p. 43) does not correspond to actual fact. More serious is Professor Tenney Frank's uncertainty as to the value of sums expressed in Asses from earliest times to the 2nd century B.C. Every student will sympathize with his difficulty, but he hardly seems conscious how very uncertain all his early calculations thus become or what a fallacious method he is following in applying a reckoning in Asses, weighing only a *sextans* or an *uncia*, to the earlier periods. To take just one example, as late as the end of the 3rd century B.C., Livy records the sale of salt by the state at a *sextans* per pound,—according to Professor Frank's estimate 6 pounds for a cent—as he himself sees, an incredibly cheap price. The explanation undoubtedly is that the *sextans* of the date had some two and half times the value he assigns. This conclusion is borne out by Livy's account (34, 46), of the donative given by Cato on his return from Hither Spain in 194 B.C. : it was 270 'aeris' per man, or, in the parallel passage in Plutarch (Cato Major 10—not quoted here) a pound of silver. One pound of silver equals 270 'aeris'—270 Asses. The pound of silver also contains 288 sesterii. We are very near the basic equation, so common in later use, of Sesterius equals *libral* As. It would be interesting, again, to know how Professor Frank would defend his view that the *tributum* was levied in peace-time.

To insist too much on such criticism of detail would, however, be to misconstrue the author's intention and to do him a serious injustice. He has given us a wide and varied material for research; the present reviewer gratefully bears witness to the care and skill that has gone to its compilation in those sections where he himself is able to check it closely. We may hope that the author will reap the reward that he would probably choose, if he might, for himself,—that of seeing a great advance in Roman economic studies as a result of his devoted and self-denying labours. HAROLD MATTINGLY.

THE PSYCHOLOGY OF A PRIMITIVE PEOPLE. By STANLEY D. PORTEOUS.
London : Edward Arnold, 41 Maddox Street, W. 1. No date. pp. xv, 438, with 48 photographs and sketches. 30s.

This book is the result of work carried out at the invitation and under the direction of the Australian National Research Council, with the co-operation of the University

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of Hawaii. The author visited the East Kimberley district and Dampier Land in northwest Australia, and later he made an expedition into Central Australia. The intention was to investigate the mental status of the natives, whom the author regards as having been 'cut off, in all probability, from other racial contacts for thousands of years'. Whether he is right or wrong about the lack of contact with the outside world, there can be no doubt about the importance of the main object. The question whether the different races of mankind have inherently different types of mind or degrees of intelligence is one of the most important ones for the anthropologist and the statesman.

Professor Porteous felt that the application of recognized mental tests would not provide adequate knowledge of the native mind; and so he was led to consider the adaptability of the aborigines to their environment, and also to try and assess the psychological value of their customs.

The book is written in two parts. In the first the author attempts by means of a narrative of his expedition to convey a general idea of the Australian environment. In the earlier chapters of part II he describes, and discusses the psychological importance of, the social organization, totemistic beliefs, and such ceremonies as those of initiation; and in the later chapters he deals with the application of personal tests.

The main plan of the book lends itself to some criticism. The output of scientific literature is so large that most specialists have a very serious difficulty in reading even the more important work; and it is much to be desired that authors who have a contribution to make should make it as briefly as possible. The present book is in the reviewer's opinion too long. The narrative form in general degenerates only too easily into the traveller's tale, and the author of this book has been tempted to include some things that do not appear to be strictly relevant, as, for instance, the history of the Beagle Bay Mission station, however interesting that may be in itself. It might have been possible to deal with what is essential in the author's description of the environment in less than 108 pages.

The reviewer does not mean, however, to imply that part I contains nothing of value. Much of it is very interesting and scattered through it there are the records of many first-hand observations. Chapter VII, on Stone Age workmen and their ways, describes the ingenious technique—which the natives must have evolved themselves—for making spear-heads out of glass bottles. This shows that they are quick enough to accept a new element that fits into their cultural pattern, and it suggests that the simplicity of the Australian material culture cannot be explained solely by mental inferiority. It is interesting, too, to find a psychological element in diffusion described on pp. 114, 115. A variety of boomerang, made solely in the northwest and in parts of Queensland, is carried by trade to districts further southward, where it is much prized but apparently seldom copied. There is among the natives a tendency to respect another man's inventions, a tendency which I have noticed in children in this country. 'This no belongem my country' seems to be a sufficient reason for not copying an imported object. Professor Porteous also suggests that respect for the arts and possessions of strangers may be associated with the fear of the unfamiliar.

Part of chapter X is devoted to an interesting little biography of the aboriginal 'man in the street', or his equivalent. In chapter XII the author deals with environmental handicaps, and points out the influence they exert on a culture. The Australian cultures must not be judged without reference to these handicaps; the natives have a

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detailed knowledge of their surroundings and show much ingenuity in exploiting it. Since the quest for food and water makes necessary almost continuous movement from place to place, and since there were no animals that could be domesticated for transport, the material possessions of the people were practically limited to those they could carry with them.

In writing part II the author has been faced with the difficulty of his public. He seems to be writing for ethnologists, psychologists, and sociologists, and since he assumes that each kind of specialist is ignorant of the others' subjects, he has included a good deal of ethnology, psychology, and sociology that can be found in other books. This also helps to increase the size of the volume.

Chapter XIV contains speculations, after the fashion of Desmolin, on the origin and spread of the Australians, and in the next one the author discusses the traits of character evinced by this people or attributed to them; and he concludes that some indicate simple-mindedness or childish reactions; but they must be considered in relation to the extreme limitations of aboriginal experience. We then come to the tests, the values of which are first discussed. Professor Porteous thinks that the few tests suitable for primitive people give only a partial view of their mentality. Remarkably few can be considered to measure innate capacity apart from the effects of experience and education. There are other difficulties to be considered, such as differences of culture, language, and interest. Then, too, if the tests take too long the natives may lose interest; and one can never be sure whether they are really trying. The author is to be commended for the fairness and impartiality which he shows throughout his treatment of these tests; he concludes that 'the test results obtained do not represent an altogether just estimate of aboriginal intelligence'.

As part of his work Professor Porteous took a number of physical measurements (chap. XIX), such as standing and sitting height, and the length, breadth and height of the head. His figures indicated an average cranial capacity of 1323 c.cs. for a group of natives from the northwest, and of 1353 c.cs. for a group from central Australia. This is appreciably less than the European average. The author claims that inferior grades of intelligence occur more frequently among small-headed people than among those with large heads.

Later chapters are devoted to tests of temperament and intelligence, to memory and specially devised tests, and to children's tests. It would take up too much space to give a précis of these; but it is due to the author to say that he is careful to avoid making statements that are unsupported by his facts. While believing that 'mental differences associated with race are real and significant' he sums up the results of his investigations by saying that in tests dependent on speed the natives scored low marks, because hurry was unfamiliar to them; they were also poor at rote memory; but 'considering their unfamiliarity with the test situation the aborigines' response to tests of prudence and planning capacity, discrimination of form and special relations in test material familiar to them was little if any inferior to that of whites'.

This has been a difficult book to judge. The reviewer is of opinion that many specialists will read it with profit, but with a recurrent feeling of irritation at what he believes to be its unnecessary length. On the other hand, anyone with a moderate amount of leisure will find in it pleasant reading for several evenings from which he will obtain a good deal of enjoyment, and not a little valuable information. The book contains a number of good illustrations of the natives and their surroundings.

R. U. SAYCE.

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LES OUVRAGES DE PIERRE SÈCHE DES CULTIVATEURS D'Auvergne ET LA PRÉTENDUE DÉCOUVERTE D'UNE VILLE AUX CÔTES DE CLERMONT. By P.-F. FOURNIER. (Reprinted from *L'Auvergne littéraire*, no. 68, 1933). pp. 79, with plans and illustrations.

This article refutes the claims put forward for the new 'oppidum' to the north of Clermont-Ferrand; it is also a valuable contribution to the agricultural history of Auvergne. The thesis that the stone heaps and dry stone walls on the Côtes de Clermont represent the ruins of a town—despite the fact that similar and often larger piles of stones are to be seen on almost every hill and plateau in the region—provides material for a fine cautionary tale, and few readers of this journal will disagree with M. Fournier's comment that dry stone exercises a singular seduction on men's minds. What, then, are these accumulations of stones? They are monuments to the industry and tenacity of the French peasant. On the plateaux the soil is shallow, and, in its natural state, choked with stones, often large, which have to be removed before cultivation can be attempted. The peasant takes them to the edge of his plot, where a stone wall rapidly grows up, increasing often, in the course of years, to four or five metres in thickness. Other stones may be piled up in the centre of the plot, where a large circular heap tends to develop. On the flanks of the hills the same process goes on, complicated by the necessity of cultivation in terraces, so that the superfluous stones are used to build stout retaining walls. Along with these structures must be noted the dry stone *cabanes* (see *ANTIQUITY*, June 1933, pl. 1, p. 216). In localities where the basalt splits easily into rectangular blocks their roofs are made with overlapping blocks into a rough domed shape, which tempted M. Busset to use the dangerous analogy of Mycenaean work. The large number of these 'Gallic' habitations claimed for the Côtes de Clermont is reached by counting in, as collapsed huts, the circular stone heaps mentioned above. M. Fournier gives numerous photographs of the results of *épierrage* in Auvergne and elsewhere, and of a whole series of *cabanes* of various forms, and there are ample references for all those who wish to chase further any of the many hares he starts.

This painful process of securing extra cultivable ground could only go on in a period of cheap labour and flourishing agriculture, when even the most unpromising land was of value. M. Fournier believes that most of the stone heaps, in their present form, belong to the late 18th and early 19th centuries, as for many years now there has been a retrogression of agriculture in the district, accelerated by the rapid industrial development of Clermont. As an example he sketches the agricultural history of the plateau of Gergovia, which 16th century records show was then pasture land, but there were already great heaps of stones lying about testifying to an earlier period of intensive cultivation—probably the 13th century. We are told how the men of Romagnat, to the north of Gergovia, marched out in 1757, headed by four of their number carrying guns, to assert their claim to the pastures, but were met by the men of Merdogne, ready to protect their rights, and a *rixe* ensued. The squire of Merdogne successfully enclosed, after due legal formalities, one-third of the plateau; this enclosure was annulled by revolutionary legislation, and in the year IV the plateau was divided up among the 544 inhabitants of Merdogne, each receiving three strips, so that all should have a fair share of the best land. Though the number of inhabitants is now far smaller, and the plateau is once more mainly used as pasture, this strip system is still the legal basis of land holding on Gergovia. An air photo of the mountain is given, from which an idea of the regularity of the strips, marked out by

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their *épierrage*, may be obtained, though as aerial photography it can hardly be called a success.¹

The second half of the article is devoted to criticism of the attempted identification of the Côtes de Clermont as Gergovia,² and contains much good commentary on medieval charters and place-names (here M. Fournier, the Archiviste of the Department, speaks with particular authority), on topography and on the text of Caesar. All friends of French archaeology will hope that M. Fournier has succeeded in his aim of putting an end to the unfortunate episode of the *affaire des Côtes*. OLWEN BROGAN.

MIDDELALDERSKE BYFUND FRA BERGEN OG OSLO. By SIGURD GRIEG. Oslo : Norske Videnskaps-Akademi, 1933. pp. 430, frontispiece and 376 text-figures. Price not stated.

This book describes the 'small finds' of the Middle Ages and later from the towns of Oslo and Bergen. It is a work that museum-curators will discover to be really valuable, and we could do very well in this country with one or two books on the same scale to help us with our own material of this kind. For Sigurd Grieg has not given us just a handful of interesting by-gones or a collection of pretty 'museum' pieces; on the contrary, he has set out bravely to survey the whole depressing gamut of these urban odds and ends, of which we see so much in museums and of which we know so little. And what stuff it is! What a falling off from the admirable Viking Period antiquities that Dr Grieg has described so well in another work! In all the book there are scarcely half a dozen objects at which a fastidious collector would look twice. But if medieval Norway has little to show us that is attractive, it is not a fault that can be laid at the door of our industrious author, for whom there can be nothing but praise. He has realized that the slum-débris and rubbish-dumps of these two towns are a more important part of his country's archaeology than, for example, his one sumptuous exhibit, the beautiful Limoges gemellion found in Oslo harbour. And so he goes patiently and learnedly over his undistinguished material—ecclesiastical antiquities, domestic furniture, glass, metalwork, and pottery, kitchen-utensils and household appliances, personal ornaments and toilet articles, armour, weapons, and tools,—and finds time also to discuss the evidences of foreign trade and of funeral customs. We shall all be very grateful to the author, but, needless to say, we have as usual to interrupt our thanks by asking angrily why there is no index? It is monstrous that a book of this sort should be published without one, and if you want to satisfy yourself that the list of contents, though a good one, is not a sufficient substitute, please try to find the gemellion in it, *quickly*!

T. D. KENDRICK.

THE OLD STONE AGE. By M. C. BURKITT. pp. xiv, 254, 9 plates and 30 text-figures. PRIMITIVE ARTS AND CRAFTS. By R. U. SAYCE. Cambridge Press, 1933. pp. xiii, 291, 1 plate and 58 text-figures. Each 8s 6d.

Here are two further volumes in the Cambridge series which started with Mr Burkitt's *Our Early Ancestors*.

Mr Burkitt's well written book on palaeolithic times is for students of prehistory in general, and for those in particular who have only recently come to the study of

¹ M. Fournier informs me that after he had corrected his proofs, this illustration was put the wrong way round by the printer. O.B.

² See ANTIQUITY, June 1933, pp. 216-19. EDITOR.

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prehistoric archaeology. The author's hope that it will be useful and not prove to be too dull reading is amply justified.

One need say but little about the familiar matter and well known illustrations which necessarily appear. The two chapters dealing with geological problems and geological and archaeological correlations are especially good, the diagram showing the relationship between the Thames and East Anglian deposits being clear and free from irrelevant detail. Prehistorians are now beginning to find that an early culture is not by any means a simple undifferentiated complex, and have to realize that Europe in lower palaeolithic times was inhabited by several races living side by side. Mr Burkitt makes a point of divorcing the core-tool makers of western Europe from the flake-tool makers who dwelt further east, and hazards a guess that the flake-tools may eventually be found to be the products of different races with interrelated cultures.

A Kentish reader is bound to notice the slight error in the spelling of 'Ightham' on page 100.

Mr Sayce, in *Primitive Arts and Crafts*, emphasizes this same matter of independent evolution in a study of the Bambata Cave in southern Rhodesia, where typical Le Moustier points from the basal layers develop upwards into Solutré laurel leaves which are closely allied to those of Europe, though there was no cultural relationship between the two centres in upper palaeolithic times. Mr Sayce's book is, in fact, full of interest to the archaeologist, though its avowed purpose is to give a general idea of the modern approach to the study of material culture in primitive peoples. There is scarcely a point in the very wide field covered by his subject that the author does not deal with, from culture and all its implications, to seasonal rhythm and survivals. His choice of an example of diffusion—the spread of tobacco—is a particularly happy one, and it is well described.

R. F. JESSUP.

HANDBOOK TO THE ROMAN WALL. By J. COLLINGWOOD BRUCE. 9th edition. Edited by R. G. COLLINGWOOD. Newcastle-on-Tyne: Andrew Reid and Co., 1933. pp. x, 221, illustrated. 3s 6d.

It is great testimony to the permanent quality of a book that seventy years after its publication, and when the last edition (1924) has been twice reprinted, another edition should be called for. It is still greater testimony to Dr Bruce's Handbook that the editor should have decided he must not merely rewrite the book in the light of the great advance made in knowledge of its subject, but rewrite it in such a way that 'the book shall still be Bruce's'.

Unquestionably the editor is right. On the one hand the attempts made in the later editions to embody new knowledge have been wholly inadequate, and even the unique merits of Bruce's 'local description' must ultimately fail to outweigh the fact that the book does not keep pace with modern knowledge. On the other hand Bruce's book, is, as the editor says, a very good one whose groundwork of thought and arrangement is unshaken by the passage of time, and it has played a great part in stimulating interest in the Wall. It is fitting that it should be enabled to do in the future what it has done in the past.

The new edition reproduces with the necessary revision the three chapters (introduction, general view of the works, local description) which made up seven-eighths of the original. It omits the three short chapters and the two appendices which dealt with matters not strictly relevant to the Wall proper. A new chapter, a recognition

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of the undoubted fact that the handbook is of value to students as well as others, contains a select bibliography for the topographical details summarized in the chapter of 'Local Description'. The great majority of the old illustrations have been retained and many new ones added, and there is a new plan of Birdoswald, a nodal point of Wall problems. There are too—and this is a new feature which may not find universal favour—six full-page drawings to illustrate the scenery through which the Wall runs.

The editor has done well what he set out to do. It is no small achievement to have brought the book thoroughly up to date, to have added the chief results of the long years of work and study given to the Wall and its problems, and at the same time by judicious omissions to have avoided swelling its bulk so that it remains the handbook it was intended to be. But it is much more that he has managed to do all this and yet preserve so much of the distinctive character and qualities of the original.

It is no more than Mr Collingwood's due to say that in this new edition of the handbook he renders to the general public as great service as he has already rendered to students of the Wall, notably by his surveys in volumes IX and XXI of the *Journal of Roman Studies*, and that he pays worthy tribute to the memory of Dr Bruce, not alone by perpetuating his work but by the spirit in which he has carried through his task and the respect he shows for views from which there is no alternative but to differ. Such a note as that, on page 80, referring to Dr Bruce's well-known explanation of the partial blocking of the fort-gateways, displays an attitude towards the original which should pacify even the most partisan of those, if any still remain, who regard it as almost a 'sacred text' and think it 'better to be wrong with Plato than right with lesser men'.

J. J. R. BRIDGE.

DIE SCHWEDISCHE BOOTAXTKULTUR UND IHRE KONTINENTAL-EUROPÄISCHEN VORAUSSETZUNGEN. By J.-E. FORSSANDER. *Lund: Borelius, 1933. pp. vi, 251, with 36 plates. 10 kronor.*

Despite its modest title this book contains a masterly survey of the principal late neolithic cultures of northern and eastern Europe comparable in its scope to Åberg's well-known book *Das nordische Kulturgebiet*. But Forssander is free from certain prejudices that mar the scientific value of many works of the 'Nordic' school. He justly condemns 'the uncritical endeavour to minimize the age of neolithic cultures on the continent of Europe in order to enhance the antiquity and brilliance of the Scandinavian'. The wealth of material and the brilliance of those who have studied it, have rendered possible a reliable relative chronology of Scandinavian prehistory that provides a very convenient framework for the prehistory of adjacent lands; but it has been perverted into a limiting system to which the chronologies of the rest of Europe, and in the last resort even the Aegean and Mesopotamia (as in Hubert Schmidt's *Cucuteni*) have to be subordinated! Our author, moreover, ruthlessly exposes those exponents of the typological method who build up series without fixing either end by objective criteria but 'with the aid of instinct rather than the intelligence' like a 'musician feeling rhythm'.

A book by an investigator, living in the heart of the 'Nordic Culture' but inspired by such a critical and objective spirit and fully acquainted with the relevant literature contains so many original and illuminating ideas and puts so many of the phenomena of the Stone Age in a new light that it deserves a rather extensive analysis here.

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Chapter I contains the first comprehensive account of the Separate Grave culture of Sweden and establishes convincingly how this culture differed not only in pottery and burial rites but also in respect of accessory grave-goods from those both of the megalithic tombs and of the Dwelling Places. The relative chronology of axe-forms and pottery styles is established in the second chapter. Closed finds show that pottery of the latest style (III) and battle axes of 'Vellinge type' belong to the beginning of the Stone Cist period. The occurrence of earlier styles of Separate Grave pottery in Passage Graves shows that the culture they typify cannot begin before the second quarter and probably not before the second half of the Passage Grave epoch. The Separate Graves of Sweden would thus be strictly parallel to those of Jutland according to the relative dating of Sophus Müller and Nordmann.

The Danish battle-axe culture cannot then be the ancestor of the Swedish though the kinship between the two is so close that the stratigraphically attested evolution of the axes and pottery in Jutland may be used to confirm the typology of the Swedish forms. Nor can the supposed separate graves of Dolmen age from Jutland be the ancestors of either group of battle-axe graves since they are separated therefrom by the first half of the Passage Grave period; the battle-axe culture is intrusive in Denmark as in Sweden. (The relation of the cord-ornamented vases of the Dolmen period or earlier to those of the Separate Graves proper in Jutland and Sweden remains, however, to be explained).

An ancestor for the battle-axe culture of Jutland, Forssander, in opposition to Åberg and Kossinna, finds in the Corded Ware culture of Saxo-Thuringia, pointing out that the later Saxo-Thuringian beakers agree very closely indeed with the earliest specimens from the Danish Separate Graves. The Danish battle-axes, however, are not derivable from the Saxo-Thuringian faceted type, which is itself late.

The beakers, amphorae and ornaments from the graves of the Złota group in Poland are shown to be parallel to the later Saxo-Thuringian and so to the second half of the Passage Grave period. But at Złota there are contacts with other cultural groups, in the first place that of the Globular Amphora. In view of the prominent rôle of flint in the economy of this group it must have arisen in a flint-bearing region. Scandinavia is on good grounds excluded so that the flint-region of Galicia becomes a probable cradle. At the same time Forssander rightly recognizes unambiguous links with South Russia in the catacomb graves from which Złota pottery has been collected in Galicia. These are justly treated as inspired by South Russian graves of the same type, the age of which is thereby fixed as not later than that of the Złota culture and so the second half of the Passage Grave period. (If this be correct the relative age of the Copper Age graves of South Russia has been much underestimated by Tallgren).

Finally our author points out strikingly close agreements in the details of decoration between some Złota vases and those of the earliest Swedish Separate Graves and thus makes Złota a link between the boat-axe cultures of Sweden—and also of Finland and the Saxo-Thuringian.

He is thus able to draw up a very plausible family-tree for the pottery of the principal battle-axe cultures in Central and Northeastern Europe. Such a family tree for the typical axes cannot be constructed; in each region the earliest battle-axes are the finest and most individual and there is no gradual divergence from a common general prototype. Forssander explains this phenomenon by the assumption that the prototypes were of metal and were independently translated into stone in the several

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regions. But of course this is less than half the story. The actual copper battle-axes illustrated by Forssander (and others from South Russia not figured) cannot be regarded as genuinely metallic forms. On the other hand, long before the age of stone battle-axes, axe-like implements of antler were in use in Europe, and these exhibit peculiarities, conditioned by the material—such as the knob formed by the burr and a collar round the shaft-hole which was pierced through the base of a tine—which recur in the boat-axes, as Seger long ago pointed out.

But if Forssander's explanation of the battle-axes has to be rejected as at least one-sided, we may commend all the more his adoption of Rydbeck's suggestion that the rapid spread of the battle-axe cultures is due to the fact that their authors possessed a hitherto unknown means of transport—the tame horse. V. GORDON CHILDE.

ATHENIAN FINANCIAL DOCUMENTS. By BENJAMIN DEAN MERITT. (University of Michigan Studies, Humanistic Series, vol. XXVII). *Ann Arbor : University of Michigan Press, 1932. pp. VIII, 192, with 17 plates and 24 text-figures. Price not stated.*

This book is a collection of separate studies of various Attic financial inscriptions of the later fifth century. Chapter I is devoted to the quota lists of 430/29 to 425/4. Starting from the assumption, based on the analogy of the cycle of the secretaries of the treasurers of Athena, that the cycle of the secretaries of the Hellenotamiae also continued to 430/29, Professor Meritt is able to displace S.E.G. v 25 from that year. The new arrangement dates the extraordinary reassessment to 428/7 instead of 427/6. Further the reassessments after 425/4 should be dated a year earlier than previously supposed, thus making the change over to the 5 per cent. tax come at a regular reassessment period. The results are plausible, though the initial assumption is accepted a bit robustly (cf. p. 5 para 2 and p. 12, para. 3). The argument of chapter II is that when tribes are represented in a cycle in reverse of the official order, that cycle begins with Antiochis (x) and not arbitrarily in the middle of the series. The reverse cycle for the secretaries of the treasurers of Athena is therefore pushed back to 443/2. Chapter III redates some inscriptions relating to the Chryselephantine statue. Chapter IV further elucidates the expenses of the Samian War. Chapter V makes a variety of corrections and additions to inscriptions, lists of officials and methods of accountancy. The last four chapters are chiefly occupied with the Attic Calendar, and in particular the Conciliar Year. The more important conclusions are that in the restored democracy the number of Hellenotamiae was increased to twenty, two from each tribe, to compensate for the abolition of the Colacretae; and that the Conciliar Year 410/9 began immediately on the restoration; there was no improbable wait of perhaps two months to equate at once the Conciliar and Civil Years. Thus I.G. I² 304 is solved, and Aristotle and Andocides placated: I.G. I² 105, after some pruning of Wilhelm's restorations, fits quite as well for 407/6. In chapter VIII some alterations are proposed for the Mende and Scione campaign; and Dinsmoor's contention refuted that the Civil Year was exactly adjusted to the Metonic Cycle. The book ends with the new table of the correspondences between the Civil, Conciliar and Julian Calendars from 432 to 404 B.C. Professor Meritt argues and restores convincingly, though a certain amount of his conjecture is tentative and will probably be modified by more intensive working over of related material. His numerous new readings are accompanied by excellent photos and facsimiles, and his style is clear and concise. R. M. COOK.

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DOCUMENTS ET NOTES ARCHÉOLOGIQUES: 3e Fascicule. By LOUIS DEGLATIGNY. Rouen: Imprimerie A. Lainé, 1933. pp. 48, with 12 plans. Price not stated.

Our knowledge of the 'Siedelungsgeschichte' of ancient Gaul will always be defective until its earthworks are more fully described. The 'Enquêtes' published annually by the Société préhistorique are useful records, but hardly reach the standards of Williams-Freeman, Westropp, the V.C.H., or the Royal Commissions' reports. And at least in Normandy, the accuracy of many published plans is suspect. Without entering into a matter which is the subject of ferocious local controversy, we may congratulate M. Deglatigny on his pertinacious researches: his plans certainly look about as good as plans can be.

This fascicule is, perhaps, more interesting than its predecessors, because, for the first time, M. Deglatigny has done some digging on the earthworks that he records. The most important of these are some small circular inclosures with CD vertical of 3 to 4 metres and diameter (from bank to bank) varying between 50 metres (Brionne) and 10 metres (Pavilly). M. Poulain had already published a plan of one such inclosure—Château-Sarrazin, St. Aubin-sur-Gaillon (Eure) [*Bull. Soc. norm. des Ét. préhist.*, 1910, pp. 67-70]. On reading the report, I was struck by the similarity between this earthwork and an ordinary Irish ring-fort: and M. Deglatigny's researches support the parallel. We must, it seems, docket in our minds the fact that there are not a few Rath-like structures in the lower Seine valley. What is their date? Montelius guessed that Château-Sarrazin was Norse, remarking at the same time that there was nothing like it in Sweden. And now M. Deglatigny comes out with the theory that these inclosures are Frankish. 'Il semble qu'on puisse dire', he says (p. 29), 'd'une façon générale, que toutes les enceintes de forme circulaire sont postérieures à la période romaine proprement dite'. Unfortunately the excavations do not prove the thesis—as yet. The association of Frankish graves and circular inclosures may only be accidental, and the inclosure of Brionne (which seems, it is fair to say, to be above the average in size) is Gallo-Roman and not, perhaps, necessarily late at that. But the theory is seductive. One thinks of the moated homesteads studied by Des Marez in his work on the Frankish colonization of Belgium (*Ac. Roy. de Belgique* (2), vol. ix). and the notion of Frankish *Einzelhöfe* would not, I suppose, come amiss to Mr Joliffe. But we must know more. Thorough excavation is wanted, mere 'sondages' are not good enough; and the examples must be mapped and studied in relation to the geology of the district.

There is other interesting matter in the book. An earthwork at Corneville-sur-Risle of about 2½ acres in area and with an internal ditch might possibly be a 'Wood-henge': and there are also examples of the amorphous square inclosures, like those which M. Deglatigny has studied in the earlier fascicules. Most of those are regarded as military works of the Middle Ages. And we are taken outside earthworks with an observation on Roman foundations at Rouen, and with a specimen of local archaeological polemics.

The whole book is of the highest merit and does honour to a man who is still doing active field-work at an age when most men have retired to their fire-sides. But one lays it down with the feeling that the field-work must be followed by excavation. M. Deglatigny himself is in the succession of Cochet and De Vesly, and one hopes that, if he cannot undertake the task himself, he has disciples who will maintain the fine archaeological tradition of which he is himself the heir. C. E. STEVENS.

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MAP OF THE TRENT BASIN : showing the distribution of Long Barrows, etc.
Scale 4 miles to an inch, mounted and folded ; text *pp.* 31. *Ordnance Survey*,
1933. 4s.

With the publication of this map, the Ordnance Survey scheme for surveying the megaliths of England and Wales on a quarter-inch scale, begun in 1920, is now about half finished, and we are promised that within a reasonable time the results shall be published as a period map on the million scale. The Ordnance Survey has already earned our gratitude by publishing maps of Roman Britain and Neolithic Wessex, and shortly we are to have a map of the whole of Britain in the Dark Ages ; is it possible that the Geological Survey may, in its turn, deserve well of us by the publication of a much needed drift-map of the British Isles on the same scale ? Such a map has now become a necessity.

The Trent map, which is due to the work of Mr C. W. Phillips, is similiar in format to the map of Wessex, but in view of the great differences of opinion among ecologists no attempt has been made to restore vegetation on a geological basis. In spite of this, it is easy to resolve the geographical determinants which influenced settlement in the chief regions, namely, the chalklands of the Lincoln Wolds, the limestone plateau of Derbyshire, and to a less extent on the Magnesian limestone tract northeast of Sheffield.

The Lincolnshire barrows, first recorded by Mr Phillips, have never been excavated, and their affinities must at present be a matter for speculation, though possible evidence of cremation in the Walmsgate barrow may indicate a connexion with the long barrows of the Yorkshire Wolds. In form they are all much alike, with no very strict orientation, and with the usual thickening at the eastern end. The chalk rubble of which they are built has frequently collapsed towards the eastern end, suggesting the presence of internal wooden chambers as at the well known Wor Barrow in Dorset. Mr Phillips has begun to excavate the Giant's Hills at Skendleby, and we hope that his digging will throw light on the suggested contact between Yorkshire and Lincolnshire in the long barrow period.

The western group consists of long and round chambered cairns, and stone circles of the Arbor Low type, most of which were mutilated by barrow diggers before the days of scientific archaeology. Although the Trent basin is an obvious line of penetration from the east coast, into this western region, it seems that the chief megalithic influence came from Ireland and Wales by way of the Midland Gap, and probably King Hengist's Grave and the vanished barrow at Dinnington, both of which are situated near the western edge of the Magnesian limestone belt, mark the eastward trend of Irish and Welsh elements of megalithic culture. A characteristic of this western group is the presentation of eccentric forms, due partly to the accumulation of successive burials, not all of which, however, are of true megalithic origin.

The text includes a consideration of the stone-circles which by virtue of their size and age can be grouped with the megaliths ; this perforce excludes a large number of the smaller Derbyshire circles belonging to the full Bronze Age, and thus reduces the total number of megalithic circles to three.

Three open-air habitation-sites in the region have produced Peterborough pottery. Rains Cave near Longcliffe once yielded Windmill Hill pottery, and in another cave near Earl Sterndale, pottery of Peterborough type has recently been found with beaker ware in an association that suggests a living site. This discovery, when it is published, may help towards a further understanding of the neolithic and very early bronze cultures of a puzzling region.

R. F. JESSUP.

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ENGLISH GOTHIC CHURCHES: the story of their architecture. By CHARLES W. BUDDEN. London: B. T. Batsford, 15 North Audley Street, W. 1. New issue, 1933. pp. xi, 145, illustrated. 5s.

This book is arranged on an unusual plan. Instead of treating the subject of ecclesiastical architecture chronologically the author takes each main feature of a church separately, and describes its development and chief characteristics at different periods. This method should prove of great help to the beginner in learning his subject. A list of the most notable churches in each of the English counties is given. The illustrations, photographs and sketches as well as plans, are good. The language is admirably untechnical, save for a single lapse on page 99, where the inexpert will certainly fall foul of the cenoids and conoids. Only two trifling misprints have been observed, but Somerset cannot allow Devonshire to appropriate the fine church of Milverton (see fig. v).

In spite of the amount of information, the style is so easy that there is no impression given of an overdose of facts. Messrs Batsford are to be congratulated on their reissue of this book.

DINA PORTWAY DOBSON.

LA SCULPTURE IRLANDAISE PENDANT LES DOUZE PREMIERS SIÈCLES DE L'ÈRE CHRÉTIENNE. By FRANÇOISE HENRY. Vol. I, Texte pp. 234; Vol. II, 171 plates. Paris: Librairie Ernest Leroux, 1932. 500 francs.

This book is the second of two substantial contributions to the study of early Irish art that have recently appeared and, like its senior, Dr Mahr's 'Album', its chief and abiding value lies in its rich store of illustrations, a truly splendid collection that is an outspoken witness to Mlle Henry's painstaking industry and to her skill as a photographer. These pictures provide a really important corpus of material, some of it hitherto little known, and we can be quite sure that before long there will be many students of art, architecture, and archaeology ready to pay an enthusiastic tribute to them. It was a high endeavour that inspired the author, and a task demanding many years' work and much travelling. Mlle Henry is to be congratulated on the courage wherewith she assailed her huge subject, and on the energy that has made a monumental survey out of what need only have been a modest university thesis.

The text itself is an imposing volume, but its value, as the author would hasten to remind us, is not to be weighed against that of the album of plates. It was written and in print before any contemporary study of Celtic art had appeared, and it is to be regarded only as an introductory and experimental examination of the chief elements in Irish art. Thus in the section dealing with curvilinear ornament, Mlle Henry is at great pains to analyse La Tène patterns and to make of them a background to the Irish development. In so doing, she shows herself at one with those students who complain that they cannot find an indubitable connecting thread between La Tène art and that post-Roman art which becomes manifest first of all in England and subsequently in 7th-century Ireland. But it is surely a first duty for those who thus grumble at what archaeology cannot produce to establish the affinity of the two things to be connected. Why, in short, should there be any connexion? For who says, and on what grounds does he say, that our post-Roman trumpet-pattern and animal-ornament have anything to do with the old La Tène art? The time is coming when someone must be brave enough to give the lie to this talk of a *renaissance* of an antique Celtic art in the early Dark Ages, for the major contribution of 5th and 6th-century

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Britain was a *new* art that was unrepresented in the past and will be searched for in vain. Not only in connexion with the appearance of the trumpet-pattern disc, but also in the matter of the Style II animal (in other words the 'Durrow' complex), Mlle Henry obstinately refuses to salute one of the most dramatic inventions in the whole of our early art-history (though she plainly recognizes its existence), and through a woebegone mess of draggled La Tène survivals hurries us to turn the majestic pages of Lindisfarne and Durrow, as if they, or the British trumpet-pattern bowls, were just ground out of some old Celtic mill that had never ceased turning. Our studies of early art are going to be seriously prejudiced if we allow an obsession for continuity to detract us from a thorough study of the art as at present revealed in archaeology, and one has only to apply these fashionable archaeological methods to later art-periods in order to see how seriously they may mislead us. One feels, in fact, that Mlle Henry's pages would have been of much greater help had they given us a stylistic review of the early arts in Ireland. Her profound sympathy with Irish ornament and her extraordinary knowledge of its detail, seem to single her out as one of the few who could do us this service of defining and consolidating the styles, and it is to be hoped that she will some day extend her instructive classification of the crosses and add considerably to her 'Conclusion'. Her study of our bowl-escutcheons shows what can be done by an analysis of the styles, and there ought to be little need to emphasize the importance of grouping into schools as an essential preface to art-studies. So far as Ireland is concerned, it is plain that Françoise Henry has already done most of the work, and we are now anxious to see her elaborate the scheme lately proposed by Dr Mahr, which is so far the most helpful attempt made to break up the wealth of four centuries into archaeologically manageable sub-divisions.

It would be unfair to suggest that Mlle Henry's studies in development are not extremely useful. Her chapter on interlacing is particularly valuable, and one must pay a sincere tribute to the material collected for the sections dealing with geometric ornament, plant ornament, and figure-subjects. On two important aspects of her subject, the reviewer is not qualified to offer an opinion, but it is a duty to record that a substantial part of the text is allotted to iconography and architecture. There is, in addition, a splendid index and bibliography, and a map. It remains to say that not the least attractive part of this fine book is the charm of the author's sincere and sensitive writing. There are several passages in which she describes with delicate exactness the inmost beauties of Irish ornament, and more than once we feel, as we read, that this rare insight must have brought her nearer than any of us to an understanding of Celtic art. It is an extraordinary and a refreshing pleasure to find this quality in an archaeological book, and we salute respectfully a colleague not afraid to rank a vision of the miracle above the work-a-day duty of explaining it.

T. D. KENDRICK.

IRISH HISTORICAL DOCUMENTS, no. 2 : CRICHAD AN CHAOILLI ; being the Topography of Ancient Fermoy. *Edited* with introduction, translation, notes and map by PATRICK POWER. *Cork University Press, Educational Co. of Ireland, and Longmans, Green and Co., 1932. pp. VIII, 135, 1 map and 12 illustrations. 3s 6d.*

One cannot honestly say that this is a book for the general reader, at least for the English general reader. Irish nomenclature, if it is not directly intelligible to the mind of the Saxon, is scarcely pronounceable upon his lips, and such a sentence as, 'Ard gC'ennanuis and Dun ar Aill are one baile and from it are Hi Fhaelain and Hi Uirisi' does

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not make for easy reading. Nevertheless the book is important for specialists in a good many fields of knowledge. The genealogist will be interested in the location of many Irish family names (it is curious to discover O'Britain's in Fermoy); the palaeographer will welcome the facsimile of the principal manuscript (from the Book of Lismore); and the student of ecclesiastical antiquities will find a study of pre-Conquest church architecture, which is well represented in this district, and will see light shed on 'coarbs' and the settlement of church lands. Indeed, the editor brings forward a wealth of facts about ancient Fermoy, and if they are thrown together in rather a casual way, there is a good index.

But it is principally as an authority upon the *Siedelungsgeschichte* of Ireland that the book merits serious attention, and it is, as the editor rightly remarks, 'a document of unique character and scope'. It records in fact, the organization of a district in north-east county Cork, the area between the Ballyhoura Hills and the Nagles mountains: the divisions of the area are recorded, as are the names of the 'families' (*sloinntig*) in each division. It is, of course, important to determine the age for which these data apply. The manuscripts themselves date from the 15th century, and purport to describe the circumstances of a grant made in remote antiquity to the druid Mogh Ruith, ancestor of the O'Dugans, and the editor makes out a fairly strong case for supposing that the organization described is, at least, prior to the Norman conquest. The largest land-unit is the Tricha Céd or 'thirty hundred', and it is stated in the tract that the area which originally formed two Tricha Céds was reconstituted into one at the time of the grant. The meaning of the term Tricha Céd has been discussed by Hogan (*Proc. Royal Irish Ac.*, xxxviii, c. 7), and his conclusions are adopted in their entirety by the editor. But opportunity may here be taken of saying that, if Hogan is right in supposing the Tricha Céd to be an area capable of furnishing 3,000 warriors, then pre-Conquest Ireland must have had a population nearly three times as dense as that of Domesday England. It seems much more likely that a Tricha Céd was an area supposed to contain 3,000 people. How then was it possible to turn instantaneously two Tricha Céds into one? The text answers the question by telling us that it was done to diminish the tribute payable to the overlord, and this phrase gives us the very evidence of which Hogan has denied the existence, showing us the Tricha Céd transformed from a population-group into a unit of taxation. Examples of such 'degeneration' are familiar enough to students of land-tenure. The Domesday 'hide' occurs at once as a parallel. The boundaries of the original Tricha Céds are given in the text, and the editor makes a determined and, as it seems, successful effort to track them on the ground. It is most instructive to learn that the boundary follows in part the course of a 'linear earthwork', the Claidhe Dubh. Obviously, there is great scope for fieldwork in the tracing of these regional boundaries. I have noticed what seems to be a mention of another in *Fermanagh Inquisitions*, 4 Charles I, and Mr Patterson has shown me a long amorphous dyke near Armagh which may be a third.

The Tricha Céd is divided into a number of small principalities (Tuaths) varying in size from sixty to fourteen square miles. The text mentions the 'families' residing in each tuath, and gives a list of the 'bailes' in it; but it is not easy to discover either what numerical unit is meant by the 'family' or what is its relation to the baile. It rather looks as though our text gives us the development of a system in which one family occupied one baile of about two thousand acres on the average. Subdivisions of the baile are sometimes mentioned, but there is no evidence of such a schematic subdivision as is postulated by the theories of Seeböhm and Meitzen.

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Anyone who has toiled over the problems of local topography must feel that a man who produces results is by that entitled to the congratulation which silences criticism. Yet without wishing to be ungenerous one must say that the author might have done more and that what he has done is not entirely satisfactory. There are careless errors : he gives lists of the ' families ' in each tuath, and in these lists there are omissions. This means that he has forfeited our confidence and that all his lists must be laboriously checked by anyone who uses the book seriously. The text purports to be a ' transliteration ' of the MSS, but the editor has introduced more punctuation marks than are in his MSS, and once, at least, has created a territorial subdivision which they do not warrant. Furthermore the map suggests that the tuath boundaries are much more certain than they are. The editor is confident (some might say rash) in the notes, but this confidence should not have intruded itself on the map, for the map will be the first thing to which general students of Celtic tenures will turn. Moreover, they have a right to grumble very loudly that the map has no scale.

The editor is strangely reluctant to give help in difficulties by the use of parallel evidence, and thus the work gives the impression of being polarized both in time and space. We are told the familiar story of the division of Irish land into Quarters and Seisrighs without being reminded that such a division finds no mention in this document. One of the land-divisions which it does mention is the ' Ceapac ' or tillage plot, but the editor does not attempt to explain the significance of the term, or tell us if it is used as a land-division elsewhere. And the relation between the ' families ' and the areas occupied by them might have been illuminated by comparison with the Tipperary Survey and Butler's study of the Kerry septs. It would have been very useful, too, if we had had a map of the ring-forts of Fermoy : does their distribution fit the population evidence of the document ? Even if it did not, this would be a piece of negative evidence of great value, and would throw light on the state of things in other parts of Ireland.

One does not want, however, to end the review on a carping note. This is a book which every student of Celtic tenure must read, and read with great care. He must ask himself many questions, and if sometimes he feels that the editor should have answered them for him, he will be very grateful for what has been done. And there seem to be no misprints either in text or transliteration—a tribute to printer and proof-reader with which we may close.

C. E. STEVENS.



AT ST. ABB'S HEAD. (See p. 202)
Ph. O. G S Crawford

facing p. 129

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Editorial Notes

THE outstanding event of the year is the publication of the second volume—actually two large books—of ‘Ur Excavations’.* The world is thus given the substantive report on an epoch-making event within six years of its occurrence. Fairly full annual reports have already appeared in THE ANTIQUARIES JOURNAL and in the PENNSYLVANIA UNIVERSITY MUSEUM JOURNAL. Dr Woolley thus succeeds in striking the happy mean between undue haste and excessive delay. Having no hungry hoards demanding annual appeasement, he is under no compulsion to settle his whole account each year; but neither does he indefinitely postpone the settlement of his debt. All scholars will agree that he has discharged it in full in the present instance; and they will be especially grateful to the Carnegie Corporation for that help which puts these sumptuous volumes within the reach of the students for whom they are intended. Examples have occurred—Mohenjo-daro, Serindia and to some extent even Knossos—where the final accounts of equally important work have been published at prices far beyond the average intelligent purse.

* *Ur Excavations*, vol. II: *The Royal Cemetery*, by C. L. Woolley; in two parts, text (604 pages) and plates (274). Published for the Trustees of the British Museum, and of the Museum of the University of Pennsylvania, by the aid of a grant from the Carnegie Corporation of New York; and printed in Great Britain at the University Press, Oxford. Price four guineas (the price was three guineas before April).

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Of the contents of the volumes we need say little. They describe the excavation of the tombs in the Royal Cemetery which yielded such rich grave-goods and so many priceless (if not always to our eyes beautiful) works of art. Both specialist and general reader will be well content with the fare provided. Dr Woolley's narrative is always lucid and often enthralling; nor need any layman hesitate to read it. He has developed his own technique of excavation and conservation; and his collaboration with expert artificers at the British Museum has produced startling results, as the illustrations show. As a minor point of criticism we note a difference in quality between the indoor photographs (of objects) and those of the excavations themselves which, though good and doubtless taken under extreme difficulties of light and dust, might sometimes be better.



British archaeologists have every reason to be proud of their post-war record at home and abroad; and everyone will congratulate Dr and Mrs Woolley on the successful conclusion of one episode in a great joint undertaking. The honours are divided between England, America, Syria and Iraq, each contributing after his kind.



This number of ANTIQUITY contains a list of Books Received. Such is the accepted method of acknowledging books which cannot be reviewed; but we feel impelled to add some words in extenuation. Obviously there is not room to review at length every book received. Yet the output of books, periodicals and 'separata' grows greater, and many of them are good and even readable. Occasional massacres are inevitable, and on such occasions both justice and expediency have to be considered. The interests of readers and authors demand that reviews shall be published as quickly as possible, accumulations have to be got rid of somehow, or we remain perpetually in arrears. We hope that those whose books are only thus briefly acknowledged—or may even have been altogether overlooked—will appreciate our difficulties and make allowances. We do our single-handed best, but the labour is onerous and unremitting.

EDITORIAL NOTES

We would take this opportunity of thanking those reviewers who have helped us so generously in the past, and continue to do so. It is not an easy task, we know, to review a book. For one thing the conscientious reviewer has to read the book first ; whereas, if he is merely writing an article or (as in this instance) thinking aloud, he can take up his pen at once and go ahead. Then again, there are many books which do not lend themselves to verbiage ; either they are so good that there is little or nothing to criticize, or they are too bad for words. It is always possible, and generally desirable, to give some sort of resumé of the contents, but this takes time. The reader wants certain concrete information :—Is this a good (*i.e.* dependable) book ? Is it written well, or in jargon ? Can I, a mere layman, understand what it is all about ? and (last but not least) How much is it and where can I buy it ?



The last items are of great practical importance, and we make every effort to inform our readers of them. (We have sometimes written specially to the publishers to enquire the price). It seems incredible that anyone should be so foolish as to send a book to an editor for review—or indeed send it out at all—without giving his own address and the price of the book ; yet this is often done, the worst offenders being foreign publishers, museums and learned societies. How on earth they expect the public to buy their goods when they withhold this essential information it is difficult to imagine.



The publishers' habit of giving no address except 'Paris' or 'Berlin', for example, has no sense. They may assume, for business purposes, that they are so well known that nothing else is needed, but this attitude serves no useful purpose and is simply a great inconvenience to all concerned. It is difficult, however, to think of any adequate explanation for the omission of the price, except in the case of very expensive books. It is surely a matter of common knowledge that books *are* sold, not given away by publishers ; so why be shy of saying for how much ? The price does not fluctuate unless the currency

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does ; and even then the rate of change in the book-trade is slow, and lags. It is the rarest thing to find a book with the price printed on it. We give it up.



Failure to state year of publication (on title-page, even if also elsewhere) ought to be a penal offence. It is perhaps less common than the others mentioned, and is now mainly confined to elementary textbooks which become out of date soon after publication (when not so already). Apart from bibliographical requirements it is important to know the date because that tells us at what stage in the history of the subject, and in what cultural environment, it was composed. For the same reason the best people always try to give dates in their footnote references to books and articles, the paragon in this respect being Rice Holmes's *Ancient Britain and the Invasions of Julius Caesar* (Oxford, 1907). All subject bibliographies should give dates, even if they have to be supplied from internal or other evidence, or are only approximate.



Finally we here and now broadcast an appeal to those few reviewers who, having promised, have so far failed to reply to all enquiries about their progress—including also some writers of articles who have not responded. The sending out of reminders is an unnecessary waste of our time which might be used to better advantage.

The Stone Age of Palestine

by DOROTHY A. E. GARROD

THE archaeology of Palestine, though far less spectacular than that of its neighbours, Egypt and Iraq, can always rely on a certain public outside the circle of specialists. Even the most uninspiring potsherds, if they are dug up in Jericho or Samaria, are invested with a certain glamour by their association with Joshua or Ahab, and the hope of unearthing the Ark of the Covenant or the tomb of David has inspired more than one forlorn venture. Until recent years, however, the Stone Age of Palestine, which receives no adventitious help from association with the Bible, has suffered from neglect. It is true that a considerable amount of surface material was collected, and the names of Père Germer-Durand, Père Vincent, Père Mallon and Dr Paul Karge stand out as pioneers of prehistoric studies in this region, but until 1925 no systematic excavation had taken place. Ten years ago an article on the prehistory of Palestine would have been a very brief affair ; today it is difficult to compress into a limited space all there is to say, so rich has this small country proved in the short time that excavation has been carried out.

There is no need to dwell on the pioneer efforts of Mr Turville-Petre which resulted in the discovery of the Galilee skull ; these are well known and have already been published. Nor shall I describe in detail the admirable work done by Monsieur René Neuville on behalf of the Institut de Paléontologie Humaine, since much of his work still awaits publication. I propose instead to describe the results of excavations carried on during six seasons in the Wady al-Mughara (Valley of the Caves) on Mount Carmel by a Joint Expedition of the British School of Archaeology in Jerusalem and the American School of Prehistoric Research. This remarkable site supplies the key to a large section of Palestinian prehistory. Various Palaeolithic stages have been found in other sites, but at the Wady al-Mughara these all fall into place as part of a great sequence of deposits unequalled in this region. To

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describe this sequence is, for all practical purposes, to describe the Stone Age of Palestine from the Upper Acheulean onwards.

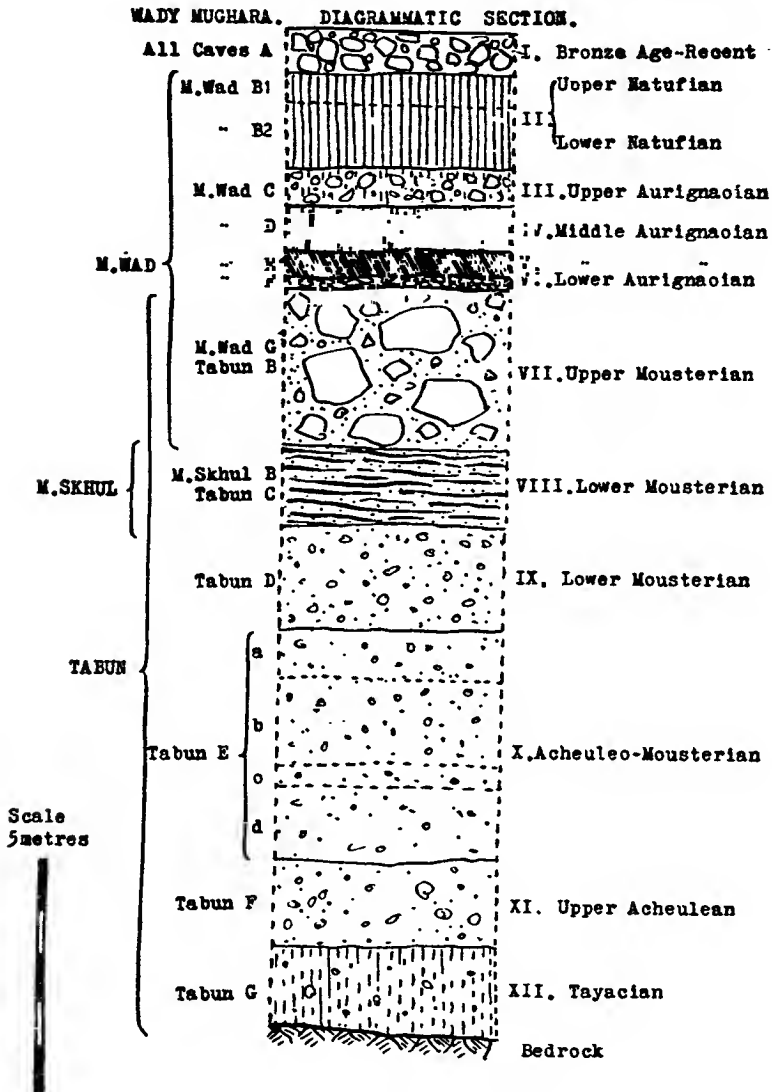


FIG. 1

The Wady al-Mughara lies at the western foot of Carmel, $3\frac{1}{2}$ miles southeast of the Crusaders' Castle at Athlit. (FIG. 6, p. 144). Both sides

THE STONE AGE OF PALESTINE

of the valley are riddled with caves, but the only ones of interest to the archaeologist are those which lie in a lofty cliff on the southern side, at the point where the valley opens on to the coastal plain. They are four in number ; the Mugharet el-Wad (Cave of the Valley), Mugharet ej-Jamal (Cave of the Camel), and the Tabūn (Oven), all of which face northwest and command the coastal plain, and the Mugharet es-Skhūl (Cave of the Kids), more a rock-shelter than a true cave, which lies a little way up the valley, apart from the other three.

The Mugharet ej-Jamal has been largely emptied of its deposits at an unknown date, and the traces of prehistoric occupation are too slight to be of value. The other three, however, more than make up for this. The full prehistoric sequence is not present in any one of them, but they overlap and complete each other in a remarkable way. In the Mugharet el-Wad we start at the top with a Mesolithic layer, and go down through several stages of Aurignacian to the Upper Mousterian ; in the Tabūn the Upper Mousterian lies at the top, and the underlying layers are Lower Mousterian, Acheuleo-Mousterian, Upper Acheulean, and finally Tayacian (a rough flake-industry only recently recognized and named). The Mugharet es-Skhūl contains only one Palaeolithic layer, the Lower Mousterian, but this has yielded nine human skeletons of a type closely related to Neandertal.

The detailed stratigraphy of the caves is rather complicated, and as it will be published in due course I do not propose to describe it here. It is sufficient to say that if we add together the average thicknesses of the different prehistoric layers we get a synthetic section roughly 21 metres in thickness ; of this 2 metres represents the Mesolithic, 2.50 metres the Upper Palaeolithic, and 16.50 metres the Middle and Lower Palaeolithic. In describing these levels I shall follow the order of excavation, and begin at the top, passing backwards in time. (FIG. 1).

The top level in all the caves is very stony, and contains remains of all ages from the Early Bronze down to modern times, without any trace of stratification. Immediately below this in the Mugharet el-Wad comes the Mesolithic layer, which is very rich in material.

The Mesolithic of Palestine, for which the name Natufian has been accepted, while undoubtedly related to the Tardenoisian and other microlithic industries, has a strongly marked individuality, especially in its older stages. The Upper Natufian is somewhat uninteresting ; it is marked by an abundance of microlithic lunates, micro-burins, and rather rough sickle-blades, with occasional notched arrow-heads. In the Lower Natufian the flint implements are slightly larger, and much

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better made. The sickle-blades are neatly squared at the ends, and care is taken that the cutting-edges shall be as straight as possible. Microburins are very rare, and arrow-heads completely absent. A large number of implements of all types, including lunates and sickle-blades, do not show the ordinary blunted-back technique, but instead have their backs sharpened by careful retouch from both faces. There is no doubt that this is meant to facilitate setting in a grooved haft. (FIG. 2).

Although the flint industry of the Lower Natufian is decidedly attractive, the thing that gives this industry its distinctive character is the presence of a large number of objects carved out of bone or stone. (FIG. 7). In the Mugharet el-Wad we found bone pins, pendants, fragments of harpoons, and a number of bone blades grooved down one edge. The latter we interpreted as fragments of sickle-hafts, and this was presently confirmed by the discovery of a piece of rib with two flint blades still in place. The Natufians were also artists of some merit. From the Mugharet el-Wad come two carvings; one in bone of a young deer with head thrown back in the attitude of sucking, the other, in calcite, a small human head, rather roughly executed. These finds were supplemented in a remarkable way by discoveries made in 1931 by Mr Turville-Petre, who was excavating on behalf of our Expedition a cave lying 10 miles south of the Wady Mughara, near the colony of Zichron Jacob. This is the Mugharet el-Kebara, and in it Mr Petre found a very rich Lower Natufian layer which yielded a quantity of bone pins, harpoons, fish-hooks, pendants and two superb grooved sickle-hafts with animal heads carved on the handles—one apparently a goat, the other indeterminable. Two more heads—one of a deer, the other, some kind of bovine creature—have probably been broken off similar hafts. M. Neuville has recently found a very fine piece of sculpture in a Lower Natufian layer in the cave of Umm ez-Zuweitina, near Bethlehem. This is carved in the round in grey limestone, and represents a deer with legs drawn up under the body and neck stretched forward. The head unfortunately is missing, owing to an old break, and has not been recovered.

Well-made vessels of limestone or basalt are fairly common in the Lower Natufian, and are accompanied by cylindrical basalt pestles, some of which are stained with ochre.

Our discoveries at the Mugharet el-Wad threw considerable light on the burial customs and physical type of the Natufian peoples. Remains of more than fifty individuals were found, most of them on the terrace of the cave. Sir Arthur Keith considers that they belong

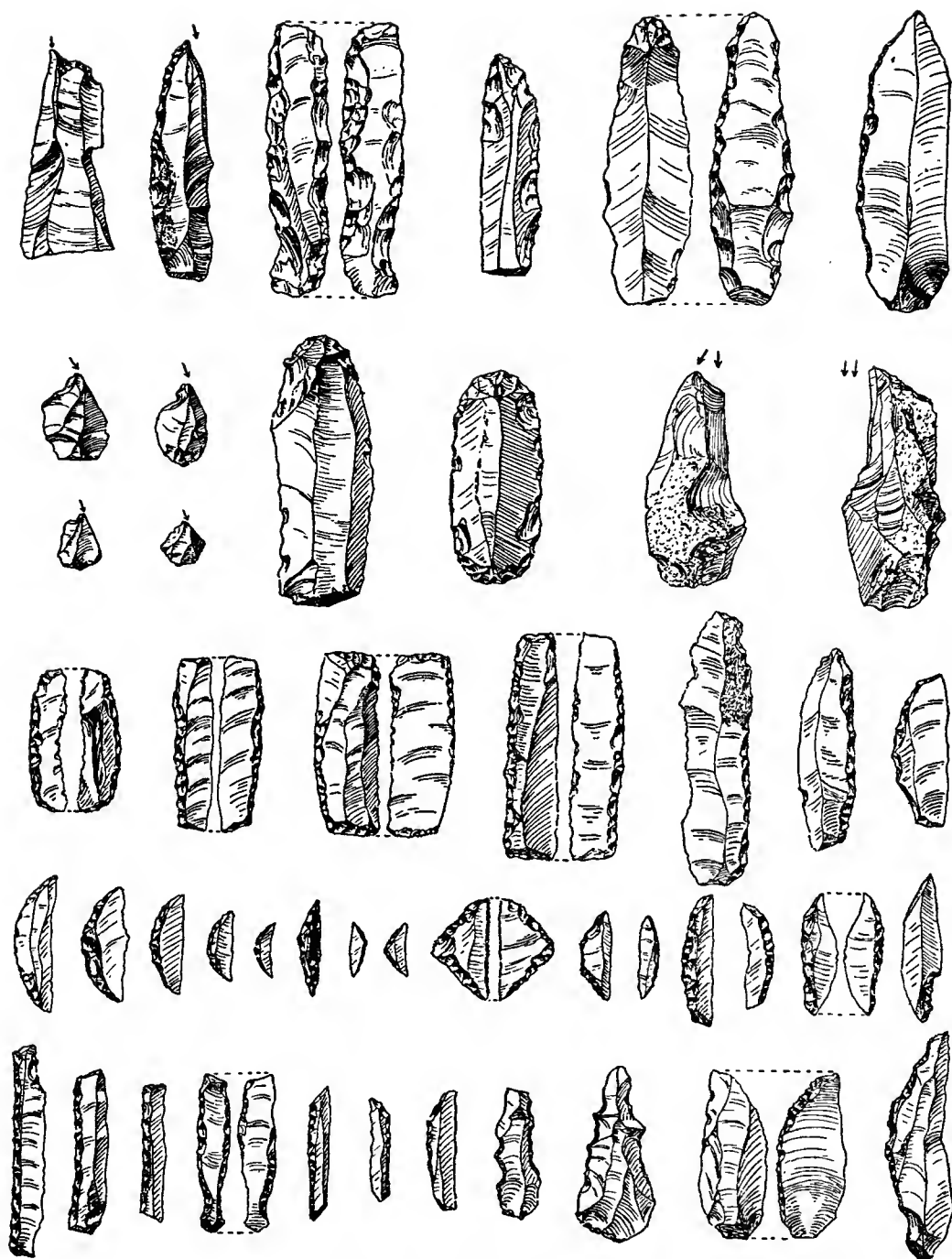


FIG. 2. FLINT IMPLEMENTS FROM LEVEL B2 MUGHARET EL-WAD, LOWER NATUFIAN

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to a short, long-headed race, resembling the pre-Dynastic Egyptians. In the majority of cases the body lay on the right or left side, indifferently, with the legs drawn up. Inside the cave, however, the bodies were all extended, and lying on the back. All burials, whether flexed or extended, were packed into place with blocks of limestone, possibly to prevent the ghost from walking. Five of the skeletons wore caps or circlets of dentalium shells, which were still almost perfectly in place, and two of these also had necklaces of bone pendants.

The observations of M. Neuville, Mr Turville-Petre and myself all go to show that no pottery is associated with the Natufian ; it can therefore be truly described as Mesolithic, even though the presence of sickles points to the existence of some form of agriculture. It is possible, however, that in Palestine, where no true Neolithic has yet been found, the end of the Mesolithic does not precede by very long the Early Bronze Age, and in that case the last stages of the Natufian may not be much older than 3500 B.C., though the Lower Natufian probably goes considerably further back. In the opinion of Miss D. M. Bate, the animal remains from the Natufian of the Mugharet el-Wad and of Kebara point to a comparatively early date, and she finds no trace of the domestication of the ox and horse.

Always proceeding downwards we now come to the Upper Palaeolithic. We found in the Mugharet el-Wad remains of four stages of the Aurignacian, the total thickness of the Upper Palaeolithic layers being 2.50 m. The Upper Aurignacian of this region (which is not comparable with the Upper Aurignacian of Europe and is probably contemporary with the Magdalenian), was found in Layer Wad c, immediately underlying the Lower Natufian. It is a crude industry, which does not compare very closely with any other known Upper Palaeolithic stage. The curved flint knives of Chatelperron type at first sight suggest a connexion with the Capsian of North Africa, but the associated tools do not bear this out. By far the most abundant is the core-scraper, generally rather rough, and next to this, the prismatic graver. In this one layer, which did not occupy a very large area in the cave, thousands of these scrapers and graters were found, as compared with barely a hundred Chatelperron points. (FIG. 3). Animal bones were abundant, but there were no bone tools, and human remains were confined to a fragment of a lower jaw.

Layer Wad d was subdivided into D1 and D2, but in fact the industries found in these two divisions resemble each other very closely, the chief difference being that in D2 the implements are better finished,

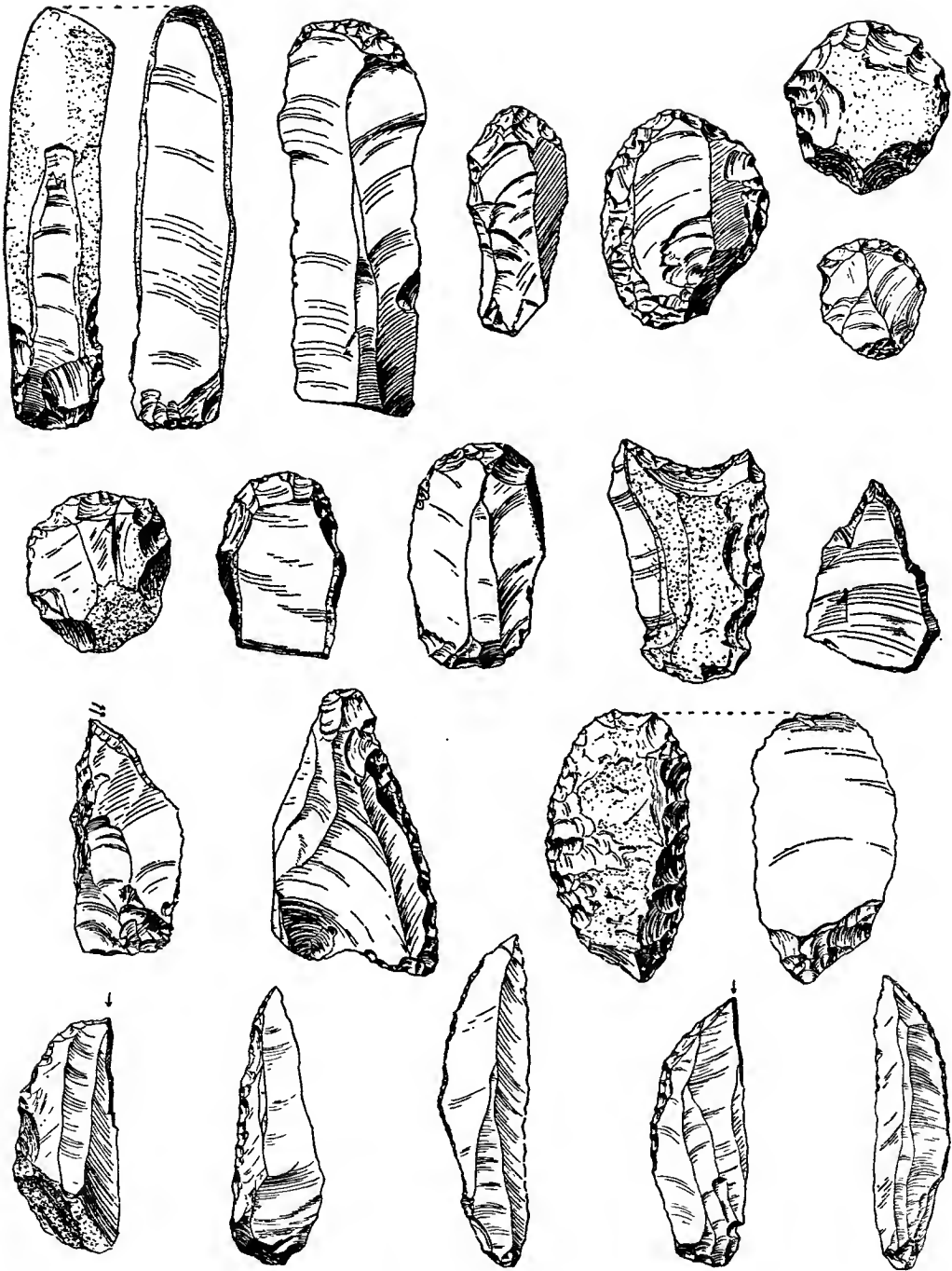


FIG. 3. MUGHARET EL-WAD: UPPER AURIGNACIAN, LAYER C

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and show more clearly defined types. Layer D provided one of the surprises of the Wady Mughara. On general grounds it seemed likely that one might look for African influences in the Palaeolithic of Palestine, since geographically it can almost be considered an extension of Egypt ; moreover, as we have seen, the curved points of Wad c had already suggested a possible Capsian connexion. The industry of D however resembles as closely as possible the Middle Aurignacian of Europe, a stage which was considered until fairly recently to be a development *in situ* of the Lower Aurignacian, at a time when Europe was closed to North African influences. The presence of a flourishing industry of Middle Aurignacian type in the Near East suggests that the part played by Oriental influences in the Upper Palaeolithic has been overlooked up to the present in favour of what M. Vaufreys has described as a *mirage africain*. (FIG. 4).

The Aurignacian of Wad D yielded beautifully made rostrate scrapers with fluted retouch, carinated and end-scrapers, graters of all kinds, including the busqué type, and blades and points worked all round with the broad flat retouch so characteristic of the Middle Aurignacian. No bone tools or weapons were found, and this was rather surprising, as in Europe the bone 'split-base' point or *pointe d'Aurignac* is absolutely typical of this stage. A possible explanation offers itself. The very large amount of charcoal found in this layer suggests that wood was readily obtainable; in Western Europe, on the other hand, the conditions produced by the second maximum of the Würmian glaciation were unfavourable to the growth of trees. May not the Aurignacian people of Palestine have been in the habit of using wood for many of the purposes for which their European kinsmen used bone? The *pointe d'Aurignac*, in particular, with its technique of splitting the base instead of cutting it into a fork, is a form that may well have been copied from a wooden prototype.

Layer Wad E (FIG. 5) also contains an industry of Middle Aurignacian character, but belonging definitely to an earlier type than that of D. It is marked by broad end-scrapers and round scrapers, the rostrate form being rare. A characteristic implement is a small finely retouched sharp flint point; this is already well-known from Krems in Lower Austria, and from Font-Yves near Brive, and I have named it the Font-Yves point. Both these sites are considered to belong to an early stage of the Middle Aurignacian, and the position of Layer E in the Mugharet el-Wad confirms this. A few bone points were found in E; these are made from a metacarpal or metatarsal of goat or gazelle, with

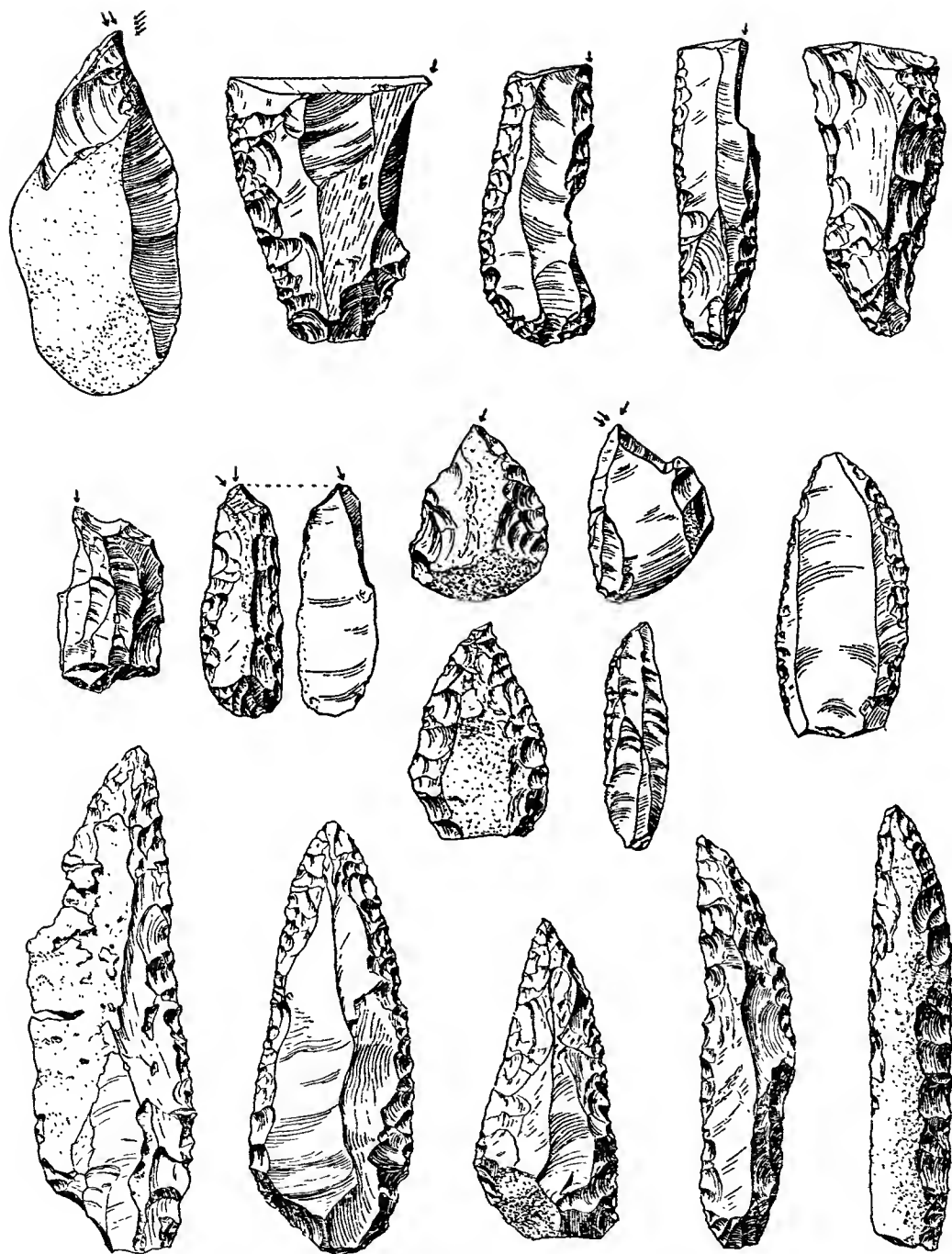


FIG. 4. MUGHARET EL-WAD : MIDDLE AURIGNACIAN, LAYER D

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the articular surface of the distal end left untouched. Two human jaws and some skull fragments were found in this layer, and according to Keith they do not differ markedly from the Natufian type.

Layer F contains an industry which I believe to be the earliest Aurignacian of this region. Unfortunately the layer had been much disturbed by water action, and considerable admixture had taken place with the underlying Mousterian bed. It is not difficult, however, to separate the material which belongs to the Upper Palaeolithic level proper, and although not very striking in appearance it is of considerable interest. The graters from F are massive, and a number of double-ended specimens show a peculiarity which is rare in the overlying layers. The graver-facets from both ends break short abruptly, leaving a projecting 'stop' or bar about half-way down the side of the tool. In addition to the graters there are end-scrapers, some very small and delicate. The most important feature however is a small group of leaf-shaped points, with careful retouch at the base of the bulbar face. Here at last is a definite link with Africa; these points are unknown in Europe, but they occur in the Aterian of North Africa, though I am not aware that they have ever been described. Mr Burkitt having drawn my attention to a well-made, perfectly typical specimen in the Cambridge Museum from the Aterian station of Tabelbalat, in the Sahara, I have named this implement the Tabelbalat point. I do not think that the industry of Wad F can itself properly be called Aterian, since the typical tanged point is missing, but the presence of Tabelbalat points is a definite link with the Aterian, and confirms the position of this culture at the base of the Upper Palaeolithic, already demonstrated by Miss Caton-Thompson as a result of her work at Kharga.

The fauna of the Aurignacian layers of the Mugharet el-Wad has been studied by Miss Bate, who considers that it indicates a change from a wooded to a more open country in the course of the Upper Palaeolithic, for while in the lower layers *Dama Mesopotamica* occurs with gazelle, at the top of the deposit gazelle, a typical desert dweller, is more plentiful than any other species.

Underlying Layer Wad F is the Upper Mousterian deposit, which rests on the bedrock of the cave, but it has been much disturbed by water action, owing to the presence of a spring at the back of the cave, and many of the flints are heavily abraded. In the Tabūn, on the other hand, the Upper Mousterian layer is very thick, and completely undisturbed, and provided a much better illustration of this stage.

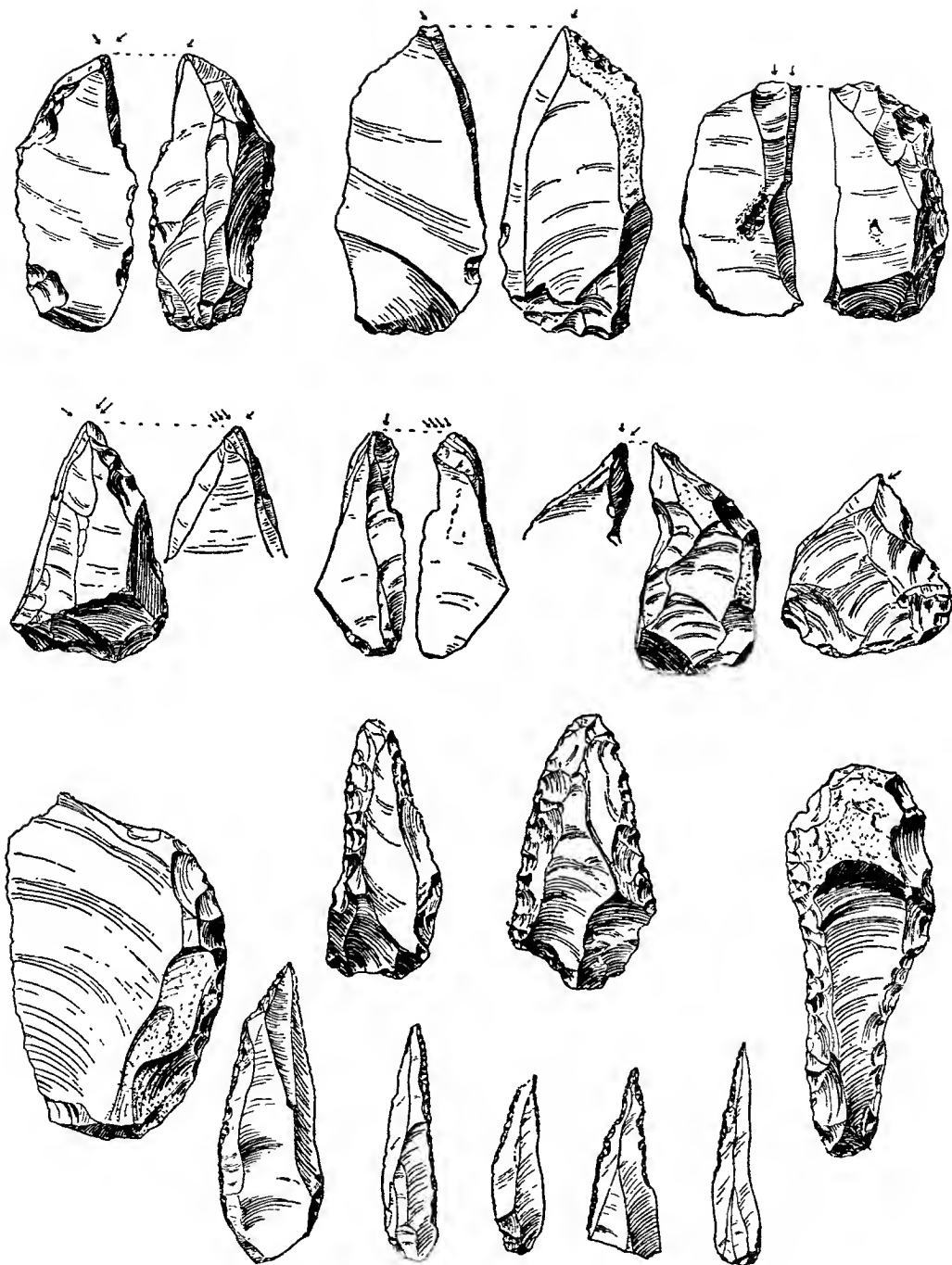


FIG. 5. MUGHARET EL-WAD : MIDDLE AURIGNACIAN, LAYER E

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Before excavation the Tabūn appeared to be quite small, and I thought it might be possible to finish it in one season. It has turned out, however, to be the largest cave of the group, with a very great thickness of deposit.

Layer A was uninteresting, containing much less material than Layer A in the Mugharet el-Wad. The sherds range from Early Bronze to modern Arab, and a small number of Natufian flints were found. This site was not inhabited in Upper Palaeolithic times, and immediately below A we get the Upper Mousterian in Layer Tabūn B. That differs considerably from the Upper Mousterian of Europe. It is definitely in the Levallois tradition, with numbers of small triangular and oval Levallois flakes. (FIG. 8). The points and scrapers have a very beautiful flat retouch, and resolved flaking is rare. Gravers occur in small numbers, and some of these are indistinguishable from Aurignacian forms. The animal remains in this layer consist almost entirely of two species of deer; *Dama Mesopotamica*, which is very abundant, and a species of red deer, and this fauna points to forest conditions, with a considerable rainfall.

Layer Tabūn c I have placed in the Lower Mousterian, because, for reasons which I shall explain later, I believe it to date from the latter part of the Riss-Würm interglacial. We are still in the Levallois tradition, and the most typical and abundant form is the oval Levallois flake, often of very large size. Triangular flakes are very rare, and in relation with this is the fact that points are much less abundant than scrapers. A small number of gravers was found, and some of these are indistinguishable from Aurignacian specimens.

The fauna of Tabūn c is very abundant, and points to warm swampy conditions, with a heavy rainfall. Miss Bate has identified rhinoceros (allied to *Rhinoceros hemitoechus*), hippopotamus, crocodile and a very large fresh-water tortoise.

A nearly complete human skeleton was found in the upper part of the layer, and 90 cm. below it, at the base, was a well-preserved lower jaw. The skeleton is of a type closely related to the Neandertal, but with certain well-marked peculiarities. It belongs to a small person, almost certainly a woman, and has a low cranial capacity. The frontal torus is very massive, and the mandible is shallow and receding, with no trace of a chin. The mandible found at the base of the layer, on the other hand, is deep and has a well developed chin, and at first sight presents a striking contrast to the other. Sir Arthur Keith, however, having regard to the characters of the teeth and other details, considers that the two represent extreme variations of the same race.

PLATE I



FIG. 6. WADY AL-MUGHARA: GENERAL VIEW LOOKING SOUTH

PLATE II

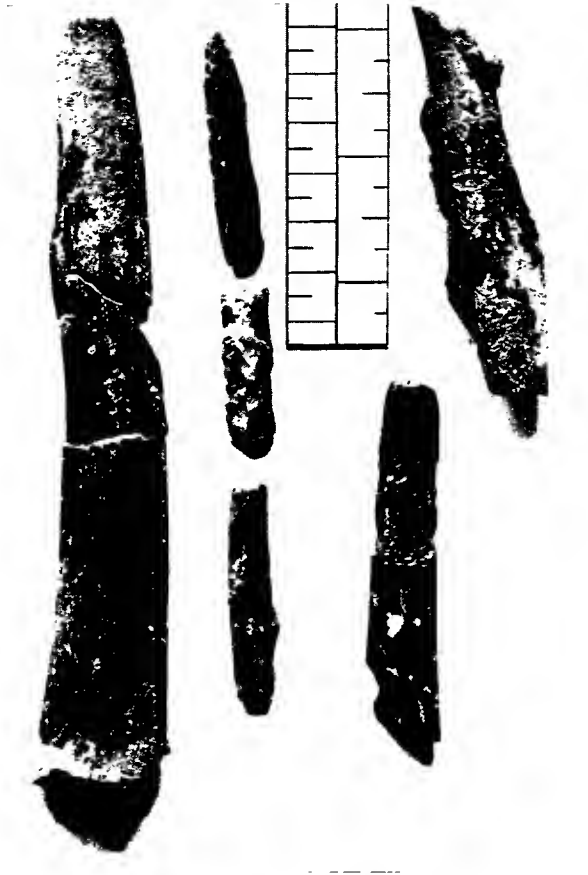


FIG. 7. SICKLE-HAFTS, LOWER NATUFIAN, MUGHARET EL-WAD

PLATE III



FIG. 8. TABUN: UPPER MOUSTERIAN, LAYER B
POINTS AND SCRAPERS

PLATE IV



FIG. 9. TABŪN ACHI'ULEO-MOUSTERIAN, LAYER Lc
HAND-AXIS OF LA MICOQUE TYPE (scale cm.)

PLATE V



FIG. 10. TABUN, ACHEULEO-MOUSTRIAN, LAYER Lb
HAND-AXES (scale cm)

PLATE VI



FIG. 11. TABŪN - ACHEULEO-MOUSTERIAN, LAYER E_B
POINTS AND END-SCRAPERS OF UPPER PALAEO-LITHIC TYPE

PLATE VII



FIG. 12. TABŪN ACHEULEO-MOUSTERIAN, LAYER LB
SCRAPERS, UPPER PALAEOLITHIC TYPE (scale cm.)

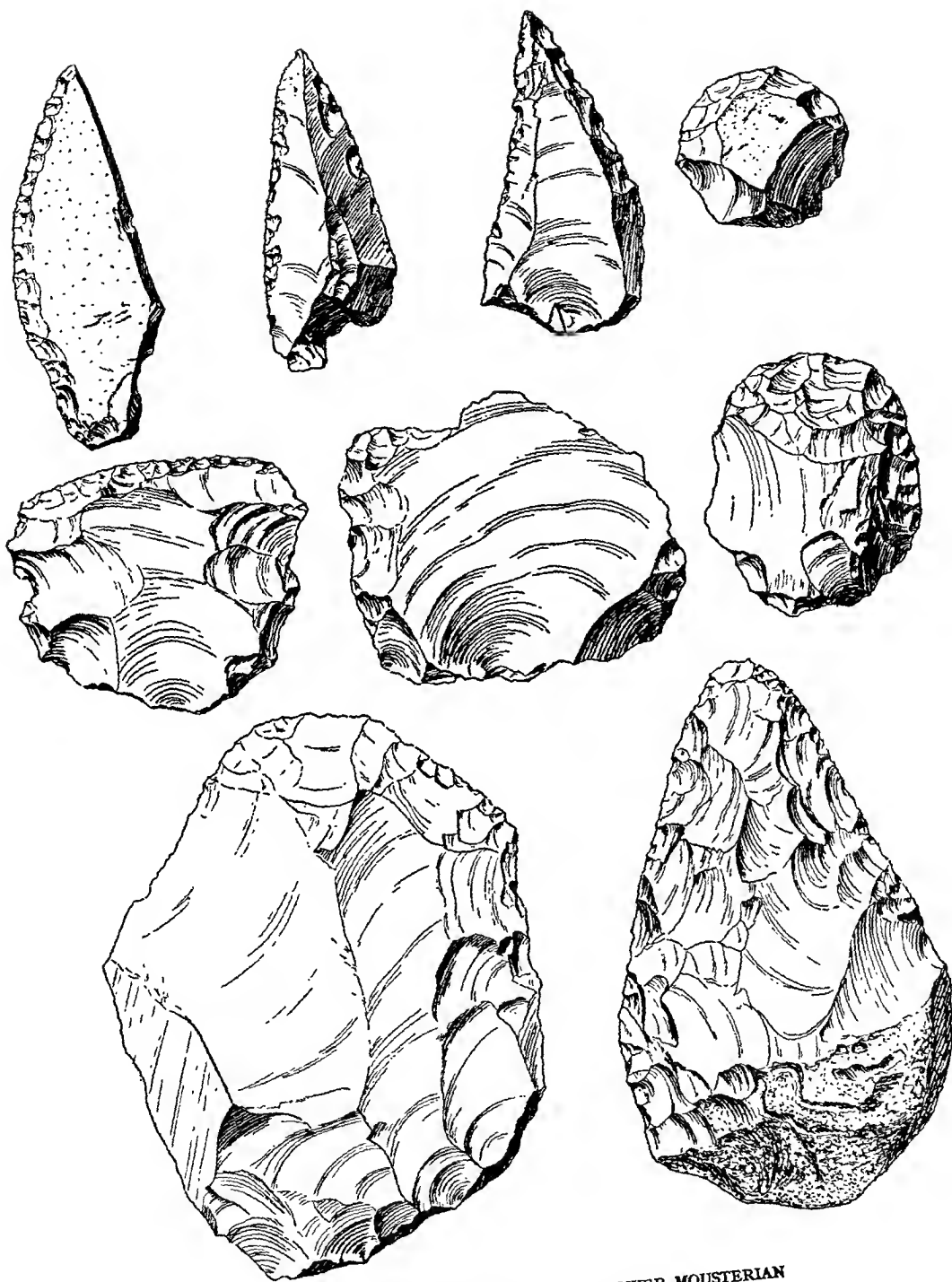


FIG. 13. MUGHARET ES-SKHUL: LOWER MOUSTERIAN

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Here I must refer to the Mugharet es-Skhūl, since the single archaeological layer present in that site corresponds to Tabūn C. (FIG. 13). The excavation of the Mugharet es-Skhūl was entrusted to Mr T. D. McCown, of the American School of Prehistoric Research, and in the course of two seasons (1931-2) he unearthed the remains of nine individuals, lying at the base of the layer, close to the bedrock, and enclosed in an intensely hard bone-breccia. Three of these skeletons (two of adults and one of a child) have been sufficiently cleared to allow some idea to be formed of their physical type, but it is still doubtful whether they belong to the same race as the Tabūn skeleton and mandible. Both the adult skeletons have mandibles with well-developed chins, and well developed skulls with a fairly high vault, in contrast with the low-pitched skull and chinless mandible of the Tabūn skeleton.

The fauna of the Mugharet es-Skhūl is substantially the same as that of Tabūn C, with the addition of a single tooth of wart-hog, which confirms the conclusions as to climatic conditions already based on the presence of rhinoceros and hippopotamus, and shows that the way was open for an interchange of species with Africa.

To return to the Tabūn; the layer underlying c—Tabūn D—contains an industry of Levallois tradition, which is not unlike that of Tabūn B. The triangular flake is much more abundant than in C, and in consequence there is no marked disproportion in the number of points and scrapers; at the same time, the broad flake is much smaller than in C. A fair number of points have retouch on the bulbar face, and some of these approximate to the Bambata and Still Bay types.

The fauna of D is much less abundant than that of C, but it seems to point to similar conditions, both rhinoceros and hippopotamus being present. At the same time the other species present are very varied, and seem to call for a varied topography. Miss Bate suggests that there must have been permanent rivers of some size, with the low country consisting of open grassy plains and bordered by wooded hills; a great contrast with the Palestinian landscape of today.

The three layers I have just described, Tabūn B, C and D, although they undoubtedly cover a long period of time, contain flint industries that are fundamentally alike. All belong to the Levallois tradition, and they differ from each other mainly in such matters as the size of the implements, and the relative abundance or scarcity of certain types. With the transition from D to E comes a complete change. In the place of the scrapers on flat flakes with prepared striking platform, we get a very large number of thick scrapers with resolved flaking, the majority

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made on flakes with plain striking-platform, in some cases of definite Clactonian type. There is a great variety of shapes ; pointed, elliptical, fan-shaped, triangular, etc. Associated with these are hand-axes, the majority pear-shaped, and often rather rough. Hand-axes are not unknown in Tabūn B, C and D, but they are extremely rare, and in some cases have the appearance of being derived from other levels ; in Tabūn E, on the other hand, the proportion of hand-axes to scrapers is about 10 per cent.

Layer E is very thick, and has therefore been subdivided into Ea, Eb, Ec and Ed, but the differences between these divisions are in most cases not very marked. On the whole Ea contains the largest and best-made implements, Ed the smallest and least well-made, but the transition is gradual, Ec, however, is marked out from the others by the character of its hand-axes. In Ea, Eb, and Ed the hand-axes are generally pear-shaped and on the whole rather roughly made ; in Ec we get hand-axes of true Micoquian type, broad at the base with fine tapering points, often excessively sharp. (FIG. 9).

I have named the industry of Layer Tabūn E, *Acheuleo-Mousterian*, though I am not entirely satisfied with this label. The flake-industry is certainly Mousterian of a kind ; it is reminiscent of High Lodge, though probably later in time, and must lie somewhere on the line which leads from the true Clactonian to the Mousterian of the French caves. The hand-axes are generally rougher than those of the true Acheulean (FIG. 10), and the majority have undoubtedly been made with a stone hammer, but the presence of a characteristic Micoquian horizon is a definite link with the final stages of the Acheulean, and I see no reason to suppose that it is not roughly contemporary with the Micoquian of Europe. The Acheuleo-Mousterian of the Tabūn must I think be added to that group of industries rather unsatisfactorily labelled *pre-Mousterian* which appear in the course of the Riss-Würm interglacial (for instance, Ehringsdorf, Krapina, Grimaldi) and which are more or less ancestral to the typical Mousterian of the first Würmian maximum.

A very interesting feature of Tabūn Eb is the presence of a group of implements of Upper Palaeolithic type. (FIGS. 11-12). These include Chatelperron points, end-scrapers and graters, and a whole series of narrow blades with nibbling retouch of the edges. There can be no doubt that these implements are perfectly in place ; the great thickness of the overlying deposits rules out any possibility of their being a later intrusion. The whole technique of their manufacture is in marked contrast to that of the typical implements of this layer, and I consider them to be due to contact with a very early Aurignacian rather

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than a development *in situ* of the Acheuleo-Mousterian industry. Dr Leakey has found Acheulean tools associated with a primitive form of Aurignacian in East Africa in a deposit older than that of the Tabūn, and there seems to be no doubt that the origins of the Upper Palaeolithic must be sought a very long way back. Part of the shaft of a human femur was found in Tabūn Ea. It does not give us much information about the individual to whom it belonged, but as far as can be judged it is of Neandertal rather than of modern type.

The fauna of E is less abundant than that of the upper layers, and the remains collected cover only Ea and Eb. The reason for this is that the deep levels have only been reached in a trench which does not extend to the walls of the cave, and has therefore missed the area close to the rock where bone is usually best preserved. When the trench is extended next season I hope to add considerably to the fauna of the deep layers. Up to the present the great majority of remains belong to fallow deer, though ox and gazelle are also represented. No rhinoceros or hippopotamus has been found. This fauna suggests a wooded habitat, but Miss Bate reserves her opinion, as the collection of bones is small.

The industry of Layer F, I consider to be true Upper Acheulean. The hand-axe predominates all through, and towards the bottom scrapers and points become more and more uncommon. The hand-axes are on the whole better made than those of E, and there are one or two true ovates, though the pear-shape still predominates. The true La Micoque type is very rare.

No fauna has yet been found in F, but as in the case of Ec and Ed, I hope this may be remedied next season.

Underlying F is our oldest layer, Tabūn G, which rests immediately on the bedrock. This contains an industry of miserable appearance, almost entirely composed of small utilized flakes, the majority with plain striking-platform. There are no hand-axes, and very few of the flakes show secondary working. It is closely comparable with that found by Peyrony in the middle layers of La Micoque, well below the level of the Micoquian hand-axes. Breuil considers this industry to be derived from the Clactonian, and has named it Tayacian. He places Tayacian I at the end of the Mindel-Riss interglacial and Tayacian II at the beginning of the Riss-Würm. Tabūn G appears to correspond to Tayacian II, and its position in the sequence at the Tabūn agrees with the La Micoque section, as well as with that of Castillo, where a Tayacian layer occurs below the bed containing Acheulean hand-axes.

This closes the sequence at the Wady Mughara, and the question

THE STONE AGE OF PALESTINE

at once arises :—Is it complete for the period which it covers, or are there gaps ? This cannot be answered quite definitely at present, but the evidence is in favour of its being complete as far as the Palaeolithic proper is concerned. The layers follow each other without any visible trace of a hiatus, and nothing has been found elsewhere in Palestine which does not fit into this sequence. The only place where a gap may probably occur is between the Upper Aurignacian and the Lower Natufian ; that is, between Wad c and Wad B2. The appearance of the deposits suggested that Layer c, which was rather hard, might have been in position for some time before B2, which was very soft, was deposited. Evidence from other places also points to the existence in Palestine of a microlithic industry of Capsian affinities which probably fills this gap.

For the oldest stages of the Palaeolithic we must look outside the caves, and our information is very incomplete because until quite recently the Chellean and the older stages of the Acheulean were found only on the surface. Sir Flinders Petrie, however, has now found Acheulean ovates *in situ* in a silt not far from Gaza, and more recently still Breuil and Neuville have found Chellean and Acheulean tools in deposits in the Baqa'a near the Jerusalem railway station. When these finds have been fully worked out we may hope for more light on the chronology of the earliest stages of the Stone Age in Palestine.

I will now indicate how discoveries made elsewhere in the country fit into the framework established at the Wady Mughara. Before the excavation of the Tabūn, Neuville had already found Upper Acheulean deposits, with Tayacian underneath, in the cave of Umm Qatafa, some miles south of Bethlehem. Since then, in the same region, he has identified Mousterian levels corresponding to Tabūn B and D, Aurignacian corresponding to Wad D and E, and Upper and Lower Natufian. The Upper Mousterian and Upper Natufian are also known from my own excavations at Shukba in Western Judaea, and at Kebara Turville-Petre found Aurignacian levels corresponding to Wad D and E. I have recently re-examined the material from Turville-Petre's excavations in Galilee, in order to see how they fit into this framework. The Upper Palaeolithic of the Mugharet el-Emireh appears to correspond with the Lower Aurignacian of Wad F ; it contains Tabelbalat points, dos rabattu knives, and small end-scrapers, all typical of Wad F. In the Mugharet ez-Zuttiyeh, the Galilee skull cave, I found that instead of a single Mousterian industry, as was originally supposed, there were two, of quite different types. One appears to correspond to Tabūn B, Upper Mousterian ; the other is identical with the Acheuleo-Mousterian

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of Tabūn Ea. It is not possible to decide to which of these stages the Galilee skull belongs, but there appears to be no doubt that it is of the same race as the Mousterian men of the Wady Mughara.

All that now remains is to consider the question of dating. The evidence for this has not yet been completely worked out, but a tentative scheme can be put forward. As I have said, I can see no reason to suppose that the Tayacian and Acheulean levels of the Tabūn are not roughly contemporary with those of Europe. Even if we take the shortest admissible chronology, this places them in the Riss-Würm interglacial, and if we accept the longer dating of Breuil and Koszłowski, at the beginning of the Riss-Würm. This agrees with the faunal evidence, indicating subtropical conditions in Tabūn c and d, which presumably coincide with the interglacial maximum. Dr Leakey has drawn my attention to the interesting point that the prevalence in east Africa of the dry conditions of an interpluvial would involve a northward shift of the African rain-belt, and the northward migration of African fauna, leading in Palestine to an increased rainfall and the arrival of African species ; precisely the conditions realized in Tabūn c and d. The return to forest conditions in Tabūn b may be correlated with the oncoming of the first Würmian maximum, since a temperate climate with fairly heavy rainfall is precisely what we should expect in the Mediterranean region when glacial conditions prevailed in Europe.

These conclusions are provisional, but they appear to fit the evidence. The Mousterian skeletons of the Skhūl and the Tabūn are placed in the Riss-Würm interglacial, and would therefore be considerably older than the Neandertal remains of La Chapelle-aux-Saints, La Ferrassie, Spy, Gibraltar, etc. They would, in fact, be roughly contemporary with those of Ehringsdorf and Krapina.

The work carried out has been possible only by the collaboration of the two institutions most closely concerned. Mr T. D. McCown of the American School, who is more especially associated with the discovery of the Skhūl skeletons, was Acting Director during my absence one season.

I have to thank my assistants in the field, officials of the Palestine Department of Antiquities, members of other archaeological Expeditions (especially Mr P. L. O. Guy, Director of the Megiddo Expedition of the Oriental Institute), experts who helped to work out results, and the following for grants and donations : the Royal Society, the Percy Sladen Memorial Fund, the Wörts Fund, the British Association, the Anthony Wilkin Studentship Fund, Sir Robert Mond, and other private donors.

The Problem of the Hermes of Olympia

by W. L. CUTTLE

ut quidam artifices nostro faciunt saeculo,
qui pretium operis maius inveniunt, novo
si marmori adscripserint Praxitelem suo . . .

PHAEDRUS.

PRAXITELES worked from perhaps about 370 B.C. to about 330 B.C. : he was a prolific sculptor, both in bronze and marble. To him was ascribed the chief part in the introduction of a psychological interest into Greek statues, whereby they became individual rather than typical : he exaggerated the slimness and the curvature of the human body, and employed in a certain measure the technique of impressionism. These general characteristics were long recognized in a number of copies of his works, which were much appreciated by the Romans.

About A.D. 174 Pausanias, compiling his guide-book to Greece, visited Olympia and saw there in the Heraeum a marble group which he described as a 'Hermes carrying the infant Dionysos : the work of Praxiteles'. This is the only reference in ancient literature to such a work by that sculptor.

On 8 May 1877, the German excavators of Olympia found upon the spot indicated by Pausanias the statue (PLATE I) which forms the subject of this paper ; after a little initial scepticism and dissatisfaction, it was accepted and officially described as 'The Hermes of Praxiteles', and for some fifty years was almost universally regarded as such ; it further enjoyed the unique distinction of being described as 'the only . . . undisputed original, straight from the hand of one of the greatest masters of antiquity',¹ and as such it enjoyed an easy vogue with those who were glad to admire a work which had received the *imprimatur* of expert approval and which Furtwängler himself had described as 'the undoubted original'.²

¹ E. A. Gardner, *Handbook of Greek Sculpture*, p. 388.

² *Masterpieces of Greek Sculpture*, English edition, p. 3.

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In 1929 Dr C. Blümel published his *Griechische Bildhauerarbeit*, a study, based on practical experience, of the technical methods followed by Greek sculptors of the archaic and classical periods. With the main portion of that most important contribution to knowledge we are not now concerned ; but as a pendant to his conclusions he added a vigorous claim that the Olympia Hermes-group is not in fact an original by Praxiteles, but a copy made to replace an original which had been removed from Olympia by the Romans.

To this disturbing claim Miss G. M. A. Richter, the Curator of Classical Art in the Metropolitan Museum of Art in New York, made a trenchant reply in her review in the *American Journal of Archaeology*, 1929, XXXIII, but the matter remained, and is, *sub lite* ; a number of authorities contributed their views to a discussion in a subsequent volume of the same journal,³ and the Hermes is in the position of a warrior in the Iliad, 'mighty, mightily fallen', about whom the contestants struggle, pulling him now that way, now this in their anxiety to claim for themselves what is left of him in the end. On the one side we have Dr Blümel ; on the other Miss Richter, with whom range themselves Mr Valentin Müller and Professor Dinsmoor ; on the other side comes Professor Rhys Carpenter, and tries to deprive the Hermes of his drapery : the attempt is resisted by Mr Müller. Mr Casson, hovering round the conflict between the two original combatants, sounds at first a neutral note, but proves a strong supporter of Dr Blümel.

To tell the beginnings from which this wrath arose : Dr Blümel showed in the main part of his work that the Greek sculptor from the 6th to the 4th century cut his statue out of the block by means of the *point*,⁴ layer by layer, working at it evenly from front and back and from the two other chief view-points ; gradually seeing the forms grow, as it were, beneath his hands out of the husk which he was patiently shelling off. This is not the place to describe at length the evidence for this well established conclusion ; suffice it to say that Blümel's study was based primarily upon examples of statues which, for various reasons, had been left unfinished, showing clearly the nature of the tools which had been used upon them, and the way in which their makers had set to work. Sometimes the archaic sculptor employed also the

³ *A. J. A.* 1931, xxxv, 249 ff.

⁴ Or 'punch' : the name 'pointed chisel' is erroneous : see Casson, *The Technique of Early Greek Sculpture*, pp. 169 ff., for the names of tools employed by sculptors.

PLATE I



THE HERMES OF OLYMPIA

By permission of The Hellenic Society.

(Restorations: legs (below knees) and left foot of Hermes; left arm of child)

PLATE II



LOWER PART OF HERMES OF OLYMPIA
showing grooving of tree-trunk
Ph W. L. Cuttle

PLATE III



PINE-TREE (*Pinus halepensis*) AT OLYMPIA
Ph. W. L. Cuttle

PLATE IV



THE BACK OF THE HERMES OF OLYMPIA

From C. Blümel, Griechische Bildhauerkunst

By permission of Walter de Gruyter and Co.

THE PROBLEM OF THE HERMES OF OLYMPIA

claw-chisel, which is virtually a multiple fine point ; generally he used it subsequently to the point. The final polishing was done with an abrasive—not with a chisel. It was only in Roman times that a *flat chisel* was used, whose strokes produced even planes, precise but sharp : an aid to sculptors concerned with the portrayal of individual traits, but the death of those warm and delicate nuances of contour which were characteristic of the more patient and more generalized art of the Greeks.

The flat chisel was only used in this art for such purposes as to cut prominent locks of hair or zigzags of drapery, whose sharp edges could not be produced with a point. Similarly, the *gouge* was used for cutting out long rounded furrows in drapery ; but never for the nude body.

These methods continue in the early classical period : the final polishing, by means of an abrasive, comes immediately after claw-chisel work, occasionally after point work : the flat chisel is never used for this purpose. A *simple drill* was used for the Olympia pediments ; also a *rasp*, usually preparatory to the application of paint.

Nor is there any material change in the years that follow : the invention of the *running drill* (applied to the Parthenon frieze and pediments, and especially to the sculpture of the Nike Balustrade) as time went on wrought important changes in the drapery, in the hair, in facial details even : but still the chief part was played by the point and the claw-chisel, and the statues were hewn from the block by the same slow and patient 'husking-out' process : nor are there any important changes in the making of sculpture in the round of a high class until late in Hellenistic times.

But in the 4th century stone-cutting of a more commonplace kind—for example most of the grave-reliefs—begins to show signs of yielding to the temptations of time- and labour-economy offered by the use of the flat chisel and rasp for polishing. Generally the nude forms held fast by the old technique of point, claw-chisel and abrasive stone : and we are still very far from the thoroughgoing practice of Roman times, when the greater part of the work was usually done with the flat chisel or gouge alone, followed by polishing which obliterated the very last traces of the tool-work.

A tendency to desert the best technique is first to be detected, according to Blümel, in a series of unfinished statues found at Delos and Rheneia. While still mainly in the old tradition, they betray an exaggerated use of the claw-chisel which approaches very nearly in effect to that of the flat chisel. Moreover, the occurrence side by side

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of very different stages of chisel work shows that now the statue was no longer regularly evolved in the round from the block ; front and back were being separately cut, and sculpture in the round was being arrived at by way of relief technique. The adjustment to each other of the parts thus separately conceived was secured by a system of measurement from fixed points. The importance of the change which had taken place—which is developed fully by Blümel—lies largely in this : the flatter designs with which the sculptor was concerned, in place of the rounded swellings and recesses of the punch-produced earlier works, led naturally, *via* the use of broad claw-chiselling, to the extensive employment of the flat chisel. At the same time, the tendency to regard during cutting separate *parts* of a statue and not the *whole* (a tendency aided by the growth of measurement by point-taking) fostered the multiplication of struts which joined these different parts together and strengthened them during working. Such struts, while at all times used in Greek sculpture, hindered the old process of cutting the statue regularly in the round, and were as far as possible avoided, both for this reason and as artistic intrusions ; when unavoidable, they were placed in unobtrusive positions, concealed wholly or partially from the spectator.

Obviously, it would be of the utmost importance for the history of ancient sculptural technique, if the date of these Delos-Rheneia figures could be determined. They have been placed in the 4th century ; but Blümel argues convincingly for a Hellenistic date, and perhaps for one so late as the first quarter of the 1st century B.C.

It is certain that Greek sculptors used models of some kind, at any rate when several men worked under one master's direction in the making of decorative sculpture : the size and nature of the models are not determined. For translating the models into stone an elementary form of measurement was used, but nothing comparable with the elaborate point-taking by which most modern works of stone sculpture are reproduced by assistants from the clay originals which are made by the sculptor himself. From the translation of a master's models into stone statues, such as we have to suppose took place when temple sculpture was made by contract, to the reproduction by copyists of single masterpieces and the multiplication of such copies, is a step which was bound to be taken when the demand arose for it. That there was a keen demand of this kind under the Roman Empire, when not even the wholesale depredation of Greek originals could satisfy in a small degree the craving for statues, is common knowledge. The filling of

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it created an army of copyists, whose skill and artistic sense varied, but whose technical methods were based upon their desire to produce their copies as quickly as possible.

This condensed account of Blümel's argument brings us to the first stage of what may be called the problem of the Hermes of Olympia. Examining that work, Blümel found no less than eight reasons for regarding it as not an original by Praxiteles : each of them strong in itself, and all of them in combination irresistible, he claimed. Six of these points are directly concerned with technique : they are (1) the unfinished state of the back parts of the group, including Hermes himself, the drapery, and the tree-trunk, (2) the fact that the group was cut first from the front and then from the back, not regularly hewn out from all sides, (3) the use of flat chisel and gouge on the nude parts, (4) the use of the (running) drill for the hair, (5) the use of the gouge on the tree-trunk, and (6) the use of the obvious and intrusive strut. To these points, whose connexion with the main thesis of his book is clear, he added one purely subjective argument : the resemblance (to his eyes) of the Hermes to certain named 'copies'. This argument must be omitted, for the question to which an answer is required is precisely this : How, *i.e.* by what technical criteria, are we to recognize a copy when we see it ?—and two of Blümel's 'copies' are regarded by others as Greek originals, and thus may now join the Hermes in the ranks of 'suspects' ; but they cannot be used as evidence against the Hermes. Lastly, as has long been recognized, the basis upon which the Hermes is set belongs, by its style, certainly not to the 4th, but to the 1st century B.C. The common explanation of this is that the group was brought into the Heraeum from some other place, and was then set upon a new basis.

Professor Carpenter sought to carry the attack further. Convinced of the truth of Blümel's theory, he looked to the drapery to supply the incontrovertible proof of it. He laid down that drapery in Greek sculpture was originally a mere linear and superficial addition to a simple atelier-form, having little or no plastic existence of its own ; that, although towards the end of the 5th century a fundamental change occurred, whereby the linear forms, hitherto the *furrows*, became the *ridges* between the furrows, yet the linear tradition persisted well into Hellenistic times ; the Mausolus and Artemisia [*c.* 350 B.C.] are early examples of works in which plastic independence at last begins to inform the drapery, yet they show scarcely any departure from the

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geometry of linear forms. Naturalism in drapery virtually begins with the great frieze of Pergamon [c. 180–160 B.C.], in which the drapery has an independent entity of its own. It was left to Roman realism to complete the process, and this explains why Blümel found his closest parallel for the drapery of the Hermes in the ‘Germanicus’ of the Louvre. The nude Hermes and his drapery, analysed purely in terms of plastic evolution, are nearly 500 years apart. How is this to be explained?

Professor Carpenter explains that the Asiatic schools of the 2nd century B.C. created certain mannerisms in the representation of drapery, which were stereotyped by the Roman copyists—‘finger-prints’, ‘zigzags’, and ‘countersunk frets’, as he calls them. He finds the drapery of the Hermes permeated with these mannerisms, which, coupled with the extreme naturalism, convince him that the statue is not only not a 4th century Greek original work, but also that, so far as its drapery is concerned, it is not even a Roman copy of a Greek original: the Hermes is a Roman copy of a Greek nude figure, with the drapery introduced as an addition by the copyist and rendered in the style and technique of his own time. The Greek original which he copied was not of marble, but of bronze; the tree-trunk (with its enveloping drapery) did not exist: unnecessary for support in a bronze work, it was added in the customary manner in the copy executed in the less sturdy material. Nor, of course, was there a strut in the original: the statue, *minus* tree-trunk and drapery, stood in a magnificent chiasmic Praxitelean pose, of such daring as we have learned to expect from the bronze boy recovered from the sea in Marathon Bay in 1925. The hair is a somewhat summary imitation of 4th century bronze work. The high polish seeks to imitate the sheen of bronze.

Such, omitting for the present a number of points, is Professor Carpenter’s view of the Hermes: a Roman copy to which the copyist has given a garment.

Before considering the replies and counter-replies which have been provoked by these theories, it is necessary to describe the statue more closely. With its general appearance everybody is familiar; but in order to see most of the peculiarities which have rendered it open to attack, it is desirable to go to Olympia: the ordinary illustrations do not show them. They show the much admired polished surface, the highly naturalistic drapery thrown over the tree-trunk upon which Hermes leans his left elbow, as he supports the child upon his arm: the stout horizontal strut which joins the tree-trunk to his hip. The

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back view is less well known (PLATE IV). The whole of the back (including the drapery and the tree-trunk) has been far less thoroughly worked than the front. Upon the back of Hermes himself we are confronted also with the very obvious and disfiguring marks of a treatment apparently designed to 'correct' a musculature which appeared somewhat too round: and no attempt has been made to hide or to palliate the traces of this 'corrective' treatment, which has left the surface as it were scarified with the legacy of a loathsome disease. Such a comparison springs easily to the mind, since the front of the figure is finished in so naturalistic a manner and presents the similitude of a perfect skin. This rehandling was, of course, noted from the first: Treu described it fully, and ascribed it to the 'hand of the Master himself'; portions of the already polished surface have been removed with a claw-chisel, and the muscles have then been recut with a gouge. On the shoulder-blades the traces of point-work run below the finished surface; but further down, the marks of the claw-chisel appear underneath those of the gouge; and the latter occur plainly also on the right buttock.

Turning to other parts of the group as seen from the back, we find that the hair of the back of the head has been sketchily cut with flat chisel and gouge; Dionysos's drapery is little more than indicated, by the gouge; the tree-trunk, which in front displays horizontal gouge furrows, at the back is roughly cut with very strong point strokes; and Hermes's mantle and the adjacent strut have been left partially in the point stage of working.

The main question here is concerned with the summary condition in which the back of the group as a whole was allowed to remain, and the technique employed upon it: the recutting of the back of Hermes is to be kept separate from it; a precaution which has not been observed throughout the controversy. It appears from Treu's words, quoted by Blümel, and from Blümel's own comments, that the back of Hermes was originally cut in accordance with the impeccable classical technique; but that the subsidiary parts of the group—the tree-trunk and drapery—were only roughed out, and that by means which, if not unthinkable in the 4th century, are at least surprisingly careless. Blümel asserted that unfinished backs were exceptional in 5th and 4th century works, the rule in Roman works: Miss Richter replied that, on the contrary, such works as the Aegina and Parthenon pediments were exceptional; the backs of Greek statues, when not intended to be seen, were quite commonly left rough. An unfinished Roman back, on the other hand, is an exception rather than a rule. Mr Casson remarks upon this

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deadlock that both Blümel and Miss Richter have exaggerated ; he rightly points out that what we need is a 4th century free-standing statue ; the sculpture of architectural decoration, including grave-stelae, will not serve.

If I may add precision to arguments already brought forward, such works were produced under different conditions, as well as for different purposes, from those which governed the making of a free-standing statue in a master's studio ; they were the product of masons, assistants, journeymen, good craftsmen though they might be. Architectural sculptures were designed to be seen as part of a building, at a distance, not to be subjected to a close scrutiny : grave-stelae, as Casson says, normally had some kind of architectural background, and were in any case usually in their nature a mason's product. Of the two exceptional pedimental groups, those of the Parthenon stand alone as an example of the extreme wealth which the citizens of Periclean Athens lavished upon their patron deity out of the tribute paid by the subjects of their empire ; and the Aegina figures—somewhat far removed in time from the date of Praxiteles—are virtually separate figures in the round set in the gable each upon its own plinth. Pedimental sculptures may therefore be dismissed from the argument as *nihil ad rem*. The other works adduced by Miss Richter in support of the claim that the Greeks commonly left the backs of statues unfinished do not appear to me to be sufficient to prove the point for our purpose : Casson's dictum must hold good : that probably in the 5th and 4th centuries they preferred finished statues, but that there are exceptions.

To the contention that the Hermes was cut first from the front and then from the back, separately, Miss Richter replied with the argument which I have stressed above, that we must distinguish between the way in which the statue was originally worked and the ' corrective ' treatment which it afterwards received. Apart from this ' correction ', the back of Hermes (not of the hair, tree-trunk and drapery) is apparently impeccable. And Miss Richter makes a good point in observing that it is precisely in a Roman copy (produced by careful measuring processes) that such correction would appear to be unnecessary. Against this, Blümel points to the other parts of the group, left in the most various stages of working : which is exactly what a copyist would do. He declares that such ' correction ' in the last stages would only be made by a copyist. And the strut, in the copyist's manner, entails separate working of front and back ; it is a barrier to homogeneous treatment.

Blümel's second point—the use of flat chisel and gouge on the nude

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parts—is nicely rebutted by Miss Richter's reference to one of his own illustrations, a partially finished 4th century relief clearly showing such use of the flat chisel (as Blümel observes in his description) ; her other examples are chosen from works which were immediately available for her inspection, in America. Casson reduces Blümel's argument to a simple formula : ' No great sculptor of statues in the round used the flat chisel for *primary* work until Roman times ', which he says is probably true, and against which Miss Richter has no evidence. To me this portion of the argument seems to be on very uncertain ground : once we regard the Hermes as suspect, we lose our one outstanding witness for the practice of ' great ' sculptors in the 4th century ; and in the absence of other evidence of a convincing nature we must regard the point as quite unproven. Casson emphasizes the difference between the technique of high and of low relief, of which he says neither of the protagonists is aware : but Blümel clearly is ; he discusses it at p. 27 of his book. And when Casson says that for *low* relief the flat chisel was used ' for 200 years prior to the Hermes being cut ', he presumably means prior to the 4th century : perhaps when he wrote this sentence he did not feel so certain that the Hermes was cut in Roman times ?

The use of the drill on the hair is a no more certain criterion : for even if the parallels cited were to be regarded as copies (which would presumably be Blümel's reply), we have no grounds for refusing to believe that Praxiteles might not have used the (running) drill, first employed in the 5th century, for the hair.

The tree-trunk provides great difficulty. Casson carried this point further than Blümel, and demands an early prototype for the familiar copyist's trunk (best exemplified in the Naples Doryphoros) with its horizontal gouged grooves. Miss Richter replies that the Olympia tree-trunk is carved in the same technique, but with far more spirit and liveliness ; not with mechanical regularity. Now it has been noticed that the grooves are *horizontal*, not vertical as the corrugations of bark should be. However remote from direct observation of nature we may suppose most copyists to have been, we must assume that someone began this practice and set the fashion. I show a photograph of the Hermes's tree-trunk and beside it one of a pine-tree which I took close to the Museum at Olympia (PLATES II and III). Many of the smaller trees (and the trunk in the group, when reduced to its natural size in conformity with the magnified proportions of the figure beside it, will be that of a quite young tree) exhibit horizontal rings which precede the corrugation of the surface : no doubt a botanist would

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describe the process technically, and would state how far these horizontal rings are restricted to certain species. It is at least interesting to see in the tree-trunk of the group an impressionistic representation (originally no doubt helped by paint) of the stem of a young *Pinus halepensis*; and I see no reason why we should not, if we wish, see in this particular trunk the prototype of the horizontally grooved trunks of innumerable Roman copies. But of course the point is not proved. (It is for the present assumed that the trunk is to be considered along with the figure, and not separately, as Carpenter's theory demands).

Nor would it be unfitting for a pine-tree, the attribute of Dionysos, to be selected for such a group: though indeed a Greek sculptor would be likely in any case to choose so common a species.

The strut, again, has given great difficulty; it cannot be denied that its presence is objectionable, to our eyes at any rate. Blümel declared that there is no evidence for the use of visible struts in Greek sculpture; the only other so-called originals which have them are of disputed date. Miss Richter replied that Praxiteles may well have used visible struts when his composition demanded them; in fact, he may have been the first to use them. Casson, however, denies the constructional necessity of the strut in this case; a sculptor assured him that it could have been quite safely removed. But in a land subject to earthquakes, would not sculptors have learned the danger of leaving delicate (Parian) marble figures precariously exposed to risks with which we are unfamiliar? It may be added, as Miss Richter says, that we must imagine the strut painted to match its background: the question, how far we must regard it as an artistic intrusion, is surely difficult to answer; artistic conventions which are accepted by one age may appear fantastic to another. I do not think the strut an insuperable barrier to a Praxitelean origin: I shall, however, return to it later.

The date of the base hardly helps us: Blümel placed it in the 1st century B.C. (not A.D., as Casson, p. 266, says), and supposed that it was contemporary with the statue, of which the original had been taken to Rome: he pointed to the official replacement of Praxiteles's 'Eros of Thespiai' by a copy, recorded by Pausanias. Casson adds the fact that the original base of Polykleitos's 'Pythokles' was found at Olympia, with the inscription recut at a later date, while a basis of Roman date, at Rome, has the same inscription. From this he infers that the original statue was taken to Rome without its base, on which another statue, perhaps a copy, was then set. Miss Richter prefers to think that the 'Pythokles' at Rome was the copy, as Furtwängler

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supposed. (We cannot tell). She further points out that the case of the Eros was exceptional; it was world-famous, considered by Praxiteles himself one of his masterpieces; and its removal was a severe blow to Thespiai, of which it was the chief attraction. In these circumstances a copy was officially provided, and Pausanias mentioned the fact precisely because it was unusual. We may observe, however, that there is no need to regard the Hermes as an 'official' copy.

Professor Dinsmoor's expert verdict on the base is that it is Hellenistic at the earliest, and most probably of the 2nd century B.C. The statue itself can hardly belong to that period, and was therefore presumably transferred from an earlier pedestal of the 4th century. This seems the more likely since the plinth of the statue itself has a clamp cutting unconnected with the present basis: nor indeed was its purpose to fasten the statue to any external object at all (Blümel thought it a temporary means of fixing it to a revolving table in the studio). Its object was rather to forestall cracking in the plinth, if not to mend an actual crack. The clamp itself may be Hellenistic or Roman: if, then, the flaw developed during carving, the statue must be Hellenistic or Roman; but since the basis is late Hellenistic rather than Roman, and since the statue is hardly a late Hellenistic copy, it seems more likely that the flaw developed when the statue was moved from an original basis to the present one.

With the theory of a removal agrees the fact noted by Miss Richter, that the statue was not seen to its best advantage in its place in the Heraeum (for which arguments are produced), and was presumably introduced from another place.

As for some of Blümel's minor points; it is said that it is very improbable that any original work by Praxiteles would have survived Roman depredation in a Greek sanctuary down to Pausanias's day. But Miss Richter rightly points to literary evidence of survivors (including the Aphrodite of Knidos, on Lucian's authority). Even if Pausanias mistook a copy for an original in this case, we cannot dismiss all his ascriptions as mistaken. He saw a number of statues in Greece which he described as works by Praxiteles. On the other hand, the Zeus of Pheidias and the Athena Parthenos are not comparable: they were colossal, chryselephantine, and very sacred: all of which facts would have militated against their removal. As for the execution of the child, subjective arguments apart, we may well regard it as an attribute rather than as a chief focus of interest. Nor indeed (to use a cliché) were the Greeks as yet actively interested in the childish form as such. Such

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an interest appears first (as we might expect) in grave-stelae, but does not reach major art until the time of Boethos.

I have dealt hitherto with Blümel's contention: Professor Carpenter's remains for discussion. Few people will be found, I think, who will accept his thesis *in toto*. One of the chief objections is the pose which the Hermes would be forced to assume if deprived of the drapery. Carpenter finds this magnificent and Praxitelean, but to others it will appear, as it does to Miss Richter, awkward and unnatural; a pose which is incompatible with the weight carried upon the left arm, and which also, in the absence of a support, destroys the rule of balance invariably⁵ observed in Greek sculpture, whereby a vertical line drawn from the suprasternal notch of a figure carrying the weight of the body on one foot would touch the inner ankle-bone of the weight-carrying leg. It will be found that in the Hermes such a line would pass to the right of this point. In other words, if the Hermes is not leaning upon some support, he is behaving in a manner opposed to human experience: we automatically redress our own balance: the Greeks observed this in life and demanded it in art. Hence the fact that a *bronze* original could have stood without the support of the tree-trunk (and if the trunk goes, so does the drapery thrown over it) does not affect the issue; the purpose of the trunk was not to ensure the stability of a marble figure copied from bronze: it was to ensure the stability of Hermes himself, in whatever material he might be represented, and to supply the visual balance which would have been lacking without it.

Nor does Miss Richter accept the description of the hair as a somewhat summary imitation of 4th century bronze tradition. She rightly contrasts it with the shallower treatment of the hair of the Marathon Bay bronze.

The core of Professor Carpenter's theory, however, is the drapery. Here he claims that he is adumbrating the critical methods of the future—*virginibus puerisque canto*, he says. Miss Richter admits the penetration of his analysis, but declares that he has confused a prototype with its descendant. We must expect to find, nearly a century after the execution of the Parthenon pediments, and at the time of the

⁵ See Miss Richter, *A. J. A.* xxxv, p. 280: she can only find two exceptions—the Marathon Bay boy, which has lost its support, and some Roman copies of the Aphrodite of Knidos, where the apparent disregard of the rule is to be ascribed to faulty restoration of the feet.

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Maussoleum sculptures, a leading sculptor introducing those very innovations which were later to degenerate into mannerisms. And she contrasts their execution in known Roman copies with their freshness in the Hermes. She scores a point when she demonstrates that Carpenter's little loop of drapery over Hermes's forearm, which 'would alone date the garment as Roman', is in fact part of the child's mantle, and therefore occurred in Carpenter's hypothetical 'original'. However, in justice to Carpenter's theory, we may imagine that the copyist would allow himself to interpret what drapery he found to copy in the same manner as that which he decided to 'add'.

A fuller attack is delivered by Mr Valentin Müller. He adopts stylistic arguments. While the 'Germanicus' has a similar arrangement of folds to that of the Hermes, they are rendered quite differently. The Hermes has soft, gentle curves, with broad, large ridges: it secures its main effect by means of the large *planes*, the smaller folds being secondary: the effect is that of a very soft woollen stuff. The 'Germanicus' has narrow, sharp, nervous folds, with hard and generally pointed angles; its main effect is secured by the *lines* marked by the long ridges: the drapery appears to be made of stiff linen. Müller refers to G. A. S. Snijder's demonstration of the difference between the drapery of copies made in Roman times in Greece and of those made in Italy: a difference which may be defined cautiously by describing one style (the Greek) as 'plastic', and the other as 'linear'. The 'Germanicus' groups itself with the Ara Pacis and other works made on Italian soil. If we look, on the other hand, at statues of Roman date made in Greece, such as certain female figures in the Olympia museum, we still see a difference from the Hermes: the Younger Agrippina and the Domitia lack in their drapery the soft roundness of the Hermes's folds; the Agrippina has no large plane surfaces, while the Domitia's planes are not organically related to the ridges: the 'Regilla' (and other later statues, including Italian ones) has largely lost the sharpness, but succeeds only in giving the appearance of a soapy envelope, not of wool: and its compressed folds form deep artificial shadows which now have the same value as their enclosing ridges; in the Hermes the shadows are secondary and natural.

Müller's remarks on the mannerisms noted by Carpenter are in the same sense as Miss Richter's: that the presence of these details is to be observed in 4th century work, though not in the stereotyped form which they assume in Roman copies.

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In giving some account of the trend of the arguments which have been used on both sides, I owe both a word of explanation to the reader and an apology to those whose views I have attempted to reproduce. The subject is not one which can be seriously considered apart from the detailed arguments which have supported the general conclusions : I have tried to express the sense of these arguments, but it is not possible to dispense with the *minutiae* if a reasoned and independent judgment is to be formed. For these the reader is referred to the authorities whom I have quoted, while to those authorities I can only express the hope that in interpreting, and sometimes criticizing, their views I have not done, by compression or selection, undue injustice to them. That there are omissions I am well aware : I have not mentioned the absence of the sandal-thong between the toes of the one extant foot, a curious piece of carelessness hardly to be adequately explained by supposing it to have been originally supplied in paint ; nor the question of the colouring, or gilding, of the hair.

Pausanias needs a word : his passage (v.17.3) is our one authority for the statue ; can we lightly set it aside ? So far as the words are concerned (τέχνη δέ ἐστι Πραξιτέλους), there can be no doubt that they mean that the statue was an original by Praxiteles ; to that Pausanias's usual language bears witness. But whether he was mistaken is another matter : it is not the accuracy of his observation which is in question (in spite of some bad mistakes, especially concerning the pediments of the temple of Zeus, he is generally accurate⁶), it is the spirit which informed his observation. We may well enquire how far he was competent or anxious to judge the works of art which he saw and catalogued : and here I may quote a general criticism written some years ago :—

‘ Par lui-même [apart from earlier writers whose works he used], il n'avait ni le goût ni la méthode des vérifications minutieuses, des recherches patientes, des déchiffrements d'inscriptions. Il aimait le travail tout fait . . . Du reste, pas plus de sens artistique que de véritable science. Ses descriptions des chefs d'oeuvre de l'art sont sèches, terre à terre, dénuées de tout sentiment personnel . . . Il . . . apprécie peu, et presque jamais par lui-même. Il était de ceux qui visitent les choses célèbres, moins pour les voir, que pour dire qu'ils les ont vues. Il prenait des notes, mais il ne pensait pas ’.’

⁶ See Gardiner, *Olympia*, *passim*.

⁷ A. and M. Croiset : *Histoire de la littérature grecque*² (1901), v, 682 ff.

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Pausanias was doubtless shown the sights of Olympia by one of the official guides who catered for the tourist of the 2nd century A.D. ; he certainly collected some odd information at Olympia, especially about the temple pediments. He was not the man to question the description of the Hermes as the 'work of Praxiteles', which might have come from a desire to enhance local glory rather than to advance the cause of truth : and he did not think it necessary to add one word of description to his meagre mention of the statue.

If it is by Praxiteles, it was at any rate not one of his famous works ; the rest of ancient literature does not mention it, and we have (in my opinion) no certain derivatives from its type. The motive of the child carried on the left arm is a familiar one, of which Kephisodotos's Eirene and Ploutos is presumably the first example : we have coins of Roman Imperial date of Corinth⁸ and Lacedaemon⁹ on which Hermes is depicted with the infant Dionysos on his left arm, but he is not at rest, but moving, and he wears a chlamys. Pausanias (III. II. II) saw a statue of Hermes carrying Dionysos at Lacedaemon ; at Corinth he saw (II. 2. 8) two bronze statues of Hermes, of which the coin might represent one. At Pheneos, in Arcadia, on the other hand, we have the interesting 4th century (B.C.) coin of Hermes carrying the infant Arkas. He is again moving ; he wears a petasos on his head, and looks back at the child, who raises his right arm. On one example of the coin Hermes is naked, but has drapery thrown over his left arm ; in another he wears his chlamys, but so as to expose his body. Head¹⁰ dated this coin after c. 362 B.C. ; he described the artist as strongly influenced by the school of Praxiteles. This is only true in so far as the subject recalls the Olympia statue : Seltman¹¹ rightly refers the treatment rather to the school of Lysippos. Imhoof-Gardner¹² think that the Pheneos group was invented by the die-cutter, and is not a copy of any sculptural work. Be that as it may, it is worth remarking that we have only Pausanias's word that the child of the Olympia group *is* Dionysos. The subject was familiar ; Pausanias and his guide may have been equally mistaken, and it is conceivable that we should see

⁸ Imhoof-Gardner, *A Numismatic Commentary on Pausanias*, E. LXXXVIII.

⁹ *Ibid.*, N. V, N. VI, N. VII.

¹⁰ *Historia Numorum*², p. 452.

¹¹ *Greek Coins*, p. 166.

¹² *op. cit.* p. 97 ; PLATES, T. IV, T. V ; also illustrated by Seltman, *op. cit.* pl. xxxv, 12, and in *Guide to Principal Coins of the Greeks*, III. B.49.

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in the child not Dionysos, but Arkas or some other infant (the restoration of a bunch of grapes in Hermes's right hand, on the analogy of the Pompeian wall-painting of a satyr and child which recalls the pose of the Olympia group, has been shown¹³ to be based upon a false conception of mythology).

The controversy has served a good purpose : it has stressed the need for a re-examination of our critical apparatus. Professor Carpenter in his last paragraph says : ' Only in the little square room at Olympia can the case be argued out '. But the differences of opinion which have been exposed show that it is useless to enter that room for purposes of argument until a common basis of argument has been established upon several essential questions. Very many, probably most of the classical statues in museums outside Greece, have no known pedigree : their provenience is vague and unsatisfactory. The growing study of technique will cause many of them to be re-examined, and sometimes subjective verdicts will have to be reversed in this court of appeal. The Hermes at present awaits the verdict : the prosecution have not made good their case, but he cannot be said to have left the court without a stain upon his character. Even if we uphold his 4th century origin, we must explain the extraordinary circumstances in which the back of Hermes himself was so savagely re-handled, and the rest of the back of the group left in so variously unfinished a condition. Probably the best solution of the problem in this light is that proposed by Dr A. J. B. Wace at a meeting of the Hellenic Society on 10 November, 1931¹⁴ : he suggests that Praxiteles in fact began the practice of leaving clay models (of free-standing statues) to be reproduced in his studio by assistants ; that the supports of such works as his Satyr, the Aphrodite of Knidos and the Hermes were an integral part of the design, and that the Olympia group is the product of one of his pupils.

Some such explanation would fit the facts ; we could then regard the group as a work which was never, on account of mistakes, finished, and which exhibits the marks of the tiro as well as of the most advanced 4th century technique ; it would explain the ' correction ' of the back, the omission of the sandal-thong, the retention of the strut which is found objectionable. How and where it survived until its admission to the Heraeum must remain subjects for speculation : but when it was admitted it would have been upon the same terms as those upon

¹³ Robert, *Archaeologische Hermeneutik*, pp. 338 ff.

¹⁴ *Journal of Hellenic Studies*, 1932, LII, p. XXII.

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which a modern art gallery gladly accepts a work ascribed to the ' (School of) such and such a Master '.

One last word : it makes no difference to the argument whether we like or dislike the Hermes : yet those who maintain its originality are generally those who like it, and *vice versa*. The first class have more logic on their side : they say, in effect, ' We admire Praxitelean art : and we admire this statue which is in his style. It is so good that we think it must be by that great sculptor '. The second class might well say : ' We dislike Praxitelean art, and we dislike the Hermes : Praxiteles may well have made it '. But they prefer to say : ' We do not think so badly of him as that '. There is, however, a *via media*, by which the Hermes may be kept in the 4th century, and yet not serve to discredit Praxiteles more than he stands already discredited as the Forerunner of the Greek Decadence.

The Magic of Columba

by O. G. S. CRAWFORD

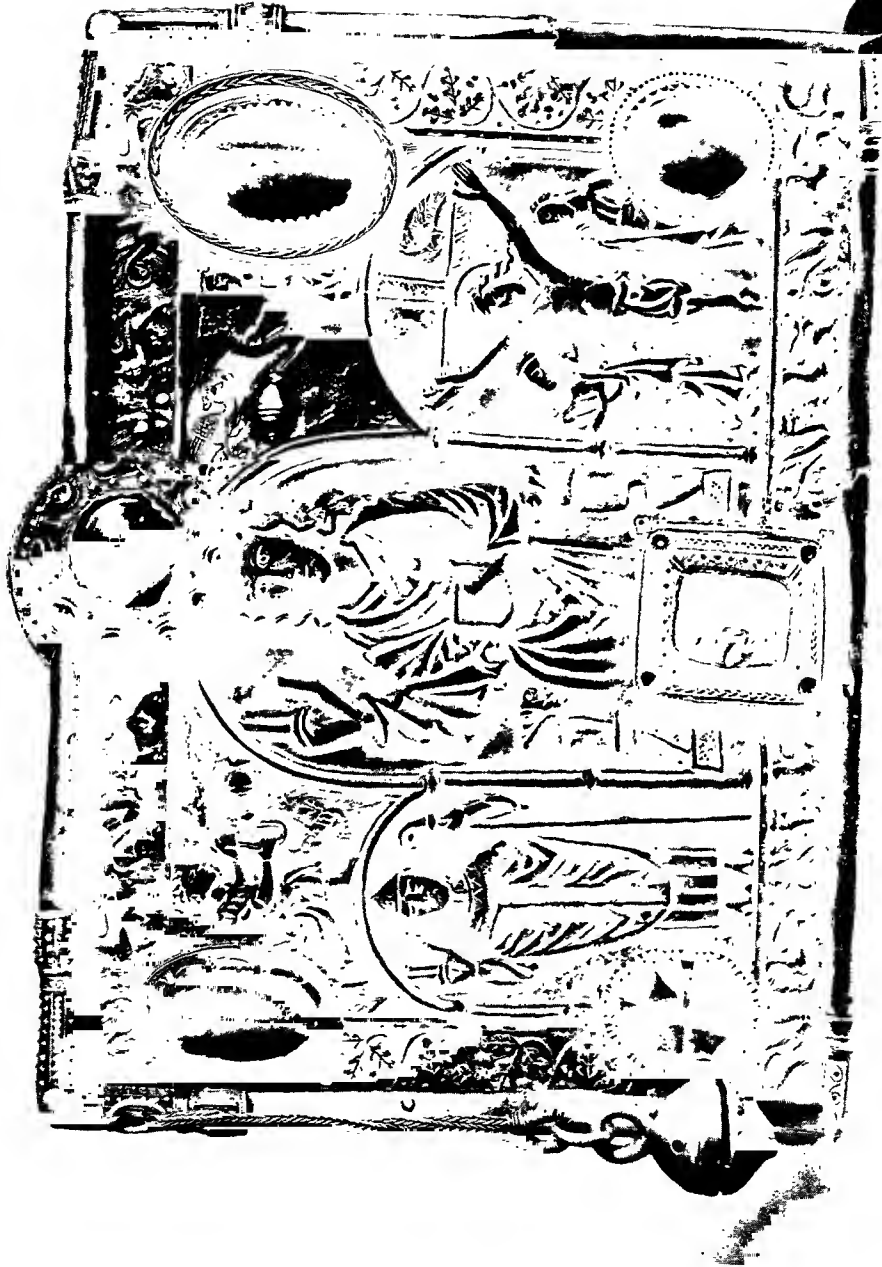
COLUMBA was the virtual founder of the Church of Scotland, and the life by his successor Adamnan has almost the authority of a contemporary document.¹ The author naturally extols the prowess of his hero ; and it is by no means easy to discern the real man through the hagiographical haze that now surrounds him. Opinions have differed widely, but all are agreed that he was quick-tempered. ' Primitive Irish ecclesiastics, and especially the superior class, commonly known as Saints, were very impatient of contradiction, and very resentful of injury. Excommunication, fasting against, and cursing,² were in frequent employment, and inanimate as well as animate objects are represented as the subject of their maledictions. St. Columba, who seems to have inherited the high bearing of his race, was not disposed to receive injuries, or even affronts, in silence. Adamnan relates (Lib. II, cap. 22) how he pursued a plunderer with curses, following the retiring boat into the sea until the water reached to his knees. We have an account (Lib. II, cap. 20) also of his cursing a miser who neglected to extend hospitality to him. On another occasion (Lib. II, cap. 24), in Hinba, he excommunicated some plunderers of the church ; and one of them afterwards perished in combat, being transfixd with a spear which was discharged in St. Columba's name. Possibly some current stories of the saint's imperious and vindictive temper may have suggested to Venerable Bede (*Hist. Eccl.*, Lib. III,

¹ Columba was born in 521 and died in 597 ; Adamnan probably wrote his *Life* between the years 692 and 697. The picture which he gives may therefore be taken to represent the monastery of Iona as it was in the 7th century.

² Cursing and fasting against. For the first, see L. Gougaud, *Christianity in Celtic Lands*, 1932, 53, note 4, quoting C. Plummer, *V.S.H.*, I, pp. CLXXIII-IV ; P. Power, *Early Christian Ireland* (Dublin, 1925) 100-1 ; Giraldus, *Itin. Kambriae* (ed. J. F. Dimock) I, 2 : II, 7 (pp. 27, 130) ; see also Baring Gould & Fisher, *Lives of the Saints*, I, 1907, 13ff. For fasting against, see L. Gougaud, *op. cit.* 97-8, and references given there ; and Baring Gould & Fisher, *op. cit.* 17ff.

Quia mandata tua non derelinquens
 neque uideri a sinomatibus
 quomando si uideretur
 hunc humiliat & hunc exultat
 Quia calix in manu dñi in me impleuitur
 & inclinauit ex hoc in hoc
 uetui peccare non est exinaniri
 habeo omnes peccationes uetui
 Quia peccata tua peccabo in seculo: cum uero dñs
 & omnia iniqua peccatorum confingantur
 & exultabunt iusti
 Hec
Mortuus in iudeis
 in iherusalem magni nominis
 & facie fuit in pace locutus
 & habitauit eius in sion
 & non negit potentiam suam
 & arcum & gladium & bellum
 in luminis tui inabili uenit demoniabus
 & in ambat sunt omnes insipientes corde
 & inueniuit somnum suum & nihil inueniuit
 & iniqui diuina in manibus suis
 & in omni uia sua

PLATE II



THE CATHACH THE SHRINE IN WHICH ST COLUMBA'S GOSPELS WERE KEPT
The National Museum of Ireland

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cap. 4) the qualified approbation '*qualiscumque fuerit ipse, nos hoc de illo certum tenemus, quia reliquit successores magna continentia ac divino amore regularique institutione insignes*'.³ In view of these facts Dr Simpson⁴ is surely entitled to speak of 'the combination of ferocity and craft that formed a marked feature of his highly complex and tinted character'. Dr Duke, who protests strongly against this passage in particular, himself speaks⁵ of Columba's 'imperious and passionate nature'; and evidence of his craft abounds throughout the Life, especially in book II. We shall come across instances later.

The clue to Columba's life, and to much that is puzzling in early Celtic Christianity, is to be found in magic. 'The "sanctifying grace" of the legendary saint neither arose from habitual virtue nor resulted primarily in holiness; it was the Christianised counterpart of the magic potency of the druid'.⁶ 'With the acceptance of Christianity the saints simply occupied the shells left vacant by the druids who had disappeared'.⁷ This stands out plainly in certain passages where Columba and the heathen *magi* confront each other. In reading Adamnan's Life we receive the impression of two rival groups of sorcerers competing for recognition before the King of the Picts and his people. Thus on four separate occasions when Columba 'threw a miracle', the *magi* are mentioned as defeated rivals.⁸ He turns a bad spring into a good one, thereby disappointing the *magi* who hoped the water would infect him with disease. He holds up the attack of a monster in the river Ness, so that the heathen (*gentiles barbari*) are forced, by the greatness of the miracle, performed before their eyes, to magnify the god of the Christians. He brings back to life the dead son of a recent convert, thus confounding the taunts of the *magi*. He sails up wind on the stated day for his departure, and so publicly confutes Broichan, the chief *magus* of King Brude.

³ William Reeves (Editor), *Life of St. Columba*, written by Adamnan (1857), LXXVII.

⁴ *The Historical St. Columba*, 1927, p. 2.

⁵ Dr Duke's phraseology suggests that Dr Simpson has committed a sin or even (much worse) a breach of good manners and taste by adopting an unfavourable view of Columba's character! (As I have said already [ANTIQUITY VII, 453] I regard Dr Simpson's main thesis as by no means proven; but that is not the point).

⁶ J. F. Kenney, *Sources for the Early History of Ireland*, I, 303; quoted by Duke, 56, note 1.

⁷ *Lives of the British Saints*, by the Rev. S. Baring Gould and Canon T. Fisher, I, 1907, 10.

⁸ Reeves, 119, 140-2, 145-6, 148-50.

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‘ The truth of the matter seems to have been ’, says Dr Duke,⁹ ‘ that St. Columba himself had not advanced very far out of the darkness which surrounded him, and that his own mind was shadowed by a very real belief in many of the superstitions of his age ’. Such an admission makes it unnecessary to do more than cite a few incidents by way of illustration.

Note, for example, Adamnan’s use of the words *benedictio*, *benedicare*. Columba found a white stone in the river Ness, blessed it and used it to cure his old rival Broichan, the witch-doctor of King Brude, from a severe illness ; having first secured from him by blackmail a promise which, before, Broichan had refused to give. The stone (perhaps pumice) had the quality of floating in water—*nec potuit sancti benedictio submergi*—nor could the saint’s *charm* be sunk. On four other occasions water imbued with Columba’s *benedictio* cures illness¹⁰ ; on another his *benedictio* is preferred to the gift of a sword.¹¹ That it was regarded as an asset of practical value is proved by the story of the blessed stake (*veru*) which successively impaled stags, and a dog, goat, salmon and crow.¹² We are told of bread, rock-salt, a chariot and a barn being blessed by Columba ; and the last act of his life was to bless the monks, with raised hand.¹³

The sign of the cross (*signum salutare*) had similar magic powers ; hence it was customary, before milking, to cross the pail, and before tools were used to cross them. It was considered effectual to banish demons, to restrain a river-monster, to prostrate a wild beast, and to unlock a door.¹⁴ Other instances of charms are cited by Reeves,¹⁵ who adds that a belief in them was not peculiar to Columba or his nation, but ‘ was professed in equal variety and firmness by the venerable father of *Saxon* history ’.¹⁶

Columba’s method of conversion was apparently to tackle the king first, then his *magi* and last of all his subjects. This is a legitimate inference both from Adamnan’s narrative and from the recorded acts of other missionaries, such as Augustine, Paulinus, Boniface.¹⁷ It

⁹ *The Columban Church*, 74.

¹¹ *Ibid.*, 159.

¹³ Reeves, 110, 114, 171, 230, 235.

¹⁵ Pp. 351–2.

¹⁰ Reeves, 111–3, 119, 127.

¹² *Ibid.*, 153–5.

¹⁴ *Ibid.*, 126, 127, 143, 141, 139, 151.

¹⁶ Bede, I, 1 ; III, 2 ; II, 12, 13, 17.

¹⁷ See *A Short History of Christianity*, by J. M. Robertson (Watts & Co., *Thinkers’ Library*, no. 24 ; 1931 ; 1s), 126–31. Note also the close proximity of early monastery and royal seat at Lindisfarne (Bamborough), Glasgow (Dumbarton), and perhaps also at St. Davids, Derry and Abernethy.

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was necessary to prove to the king that Christian magic was stronger than the magic of the local *magi*. Some of the means used have already been described. One argument which undoubtedly appealed strongly to these kinglets was a guarantee of success in battle. Magical means of securing victory were fasting, singing, and the use of relics. All three methods are well authenticated in early British and Irish history. At the battle of Chester (616), between Aethelfrith of Northumbria and the Britons, a band of Christian monks after a three days' fast chanted songs from a post of imagined security. That their action was regarded by the enemy as dangerous may be concluded from the fact that they were all deliberately killed. Bede¹⁸ records Aethelfrith as saying that 'if they cry to their God against us, they fight against us as surely as do those who bear weapons'.

We have no good evidence of Columba's direct *magical* intervention in any individual battle.¹⁹ Later tradition attributed to him the writing of the Psalter known as the Cathach,²⁰ which undoubtedly was carried into battle.²¹ (PLATES I, II). Similar magical powers are attributed by modern primitive peoples to the written word. Extracts from the Koran in the form of amulets are still used as charms to protect life, and in every modern war bibles carried by soldiers have been claimed to have saved lives. There can however be little doubt that his influence with the kinglets of the time rested on such a belief; indeed Adamnan says,²² that Columba by the power of his prayers (*virtute orationum*) secured victory for one side and defeat for the other. This power, he says, continued after death; he tells how Columba's battle-magic secured for Oswald of Northumbria the victory of Hefenfelth—a story he got from Failbhe who had it from Oswald himself.²³

¹⁸ Lib. II, cap. 2.

¹⁹ Compare, however, Adamnan, I, caps. 7, 8, 12.

²⁰ Still preserved in the National Museum, Dublin. The Cathach was the subject of a very elaborate paper by Messrs. H. C. Lawlor and E. C. R. Armstrong (*Proc. R. Irish Academy*, vol. XXXIII, sect. C, 1916-17, 241-443). The palaeographical part, which forms the most important section of this paper, leaves very little doubt about the genuineness of the tradition (which is at least as old as the 11th century) that the manuscript is as old as it has always been claimed to be. On the other hand it is impossible to state that it was either used or written by St. Columba himself. It may be said that the manuscript almost certainly belongs to St. Columba's time.

I wish to thank the authorities concerned, and Dr Mahr himself, for facilities in obtaining these two illustrations, and for permission to publish them.

²¹ Reeves, 250, quoting O'Donnel and the Four Masters, s.a.555. If carried three times right-wise round an army by a pure cleric, a safe and victorious return was ensured.

²² Lib. I, cap. 1 (Reeves, 13).

²³ Reeves, 16.

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Thus fortified, after the battle Oswald sent to Iona for missionaries—hence Aidan and Lindisfarne and Northumbrian Christianity. The Hallelujah victory is another instance.²⁴

The practice of battle-magic was common throughout early times in Great Britain and Ireland, and deserves to be studied objectively. Here I can do no more than throw out a few suggestions. What evidence is there of pre-Christian battle-magic? It is unlikely that the practice was invented by the early Christian missionaries. What is its subsequent history? Does early Welsh and Irish literature throw any light upon the subject of origins? The later developments of this essentially magical practice may be studied today in any European country. Such a ceremony as that of blessing the colours is pure magic, and the colours themselves are directly descended from the earlier Christian charms. The association of the Christian church with the armed forces is itself to be traced back to magical origins. In the process of time, however, some specialization of function has taken place; and some of the offices performed, for instance, by the monks of Bangor have now devolved upon the regimental band.²⁵

²⁴ Bede, I, cap. 21.

²⁵ The following additional instances of battle magic may be cited :—The name of the tribal god of the Jews was Yahweh Sabaoth=Yahweh of the Armies or Lord God of Hosts (E. E. Kellet: *A short history of religions*, 1933, p. 46). St. Teilo prayed for victory in battle (*Lib. Land.*, ed. G. Evans, 1893, p. 123). A priest blessing a war-standard is figured in *Proc. Soc. Ant. Scot.* ser. 2, xxiv, 1912, plate opp. p. 168. Here a warrior in armour holds forth a lance for the archbishop to bless. It comes from a psalter of St. Jerome written for Ernulph, archbishop of Milan, A.D. 998–1018.

I am indebted to Professor William Rees for drawing my attention to the following passages in the *Black Book of St. Davids* (A.D. 1326):—

p. 36. The burgesses of the town of St. Davids in time of war were bound to follow the Lord Bishop with the shrine of the Blessed David and with the relics on either side (et cum reliquiis ex utraque parte).

p. 81. (A similar service was due from the copyholders of Trevine near St. Davids, within the lordship).

p. 89. The free-holders of Maboris 'ought to follow the Lord and his host in time of war, and ought to follow the relics of the blessed David to Carntrevy' (i.e. to the boundary of the lordship).

p. 95. Knights also of the lordship were liable for the same service.

p. 123. Tenants who hold by deed at Wolf's Castle in the bishop's land of St. Davids 'they ought to follow the shrine with the relics of the Blessed David in war-time and out of war-time as far as Carntrevy'.

p. 153. The burgesses of the town of Llawhaden (in the bishop's lordship of Llawhaden): 'and if the bishop in time of war shall make a progress through his bishopric with the relics of the Blessed David, they ought to follow him to the town of Carmarthen'.

THE MAGIC OF COLUMBA

In early Christian times, however, priests and monks took part in battles like everyone else. Columba himself is said to have taken part in three.²⁶ One of them was fought against Comgall (517–602), the founder and first abbot of Bangor, ‘about a church’, evidently some dispute about ecclesiastical jurisdiction. It took place at Coleraine in Ulster at some date after 563, which was the year of Columba’s migration to Iona. Even purely ecclesiastical battles were not uncommon. In the year 763 a battle was fought at Argamoyne between the fraternities of Clonmacnois and Durrow, one of Columba’s own foundations; the latter was defeated with the loss of 200 men. In 816 a battle was fought between the fraternities of Tigh Munna and Ferns, in which 400 were slain. The annalist adds the interesting fact that ‘the fraternity of Colum-cille (Columba) went to Tara to curse (King) Aedh’.²⁷ The fact that in 804 ‘the monastic communities of Ireland were formally exempted from military service’²⁸ shows that the holy warriors of 816 must have been volunteers or enthusiasts. As Reeves pointed out however the custom was not peculiar to Ireland.²⁹

An unbiassed reader of Adamnan’s *Life* will probably conclude that the religion there displayed was a form of magic differing in no essential feature from that of any other primitive people, ancient or modern. ‘Conversion’ was a mere transference of allegiance from one magic power (or group of powers) to another, believed to be more powerful. The religion of Columba had as little, or as much, in common with the religion of any Scottish minister of today as the barbarous life he led has with theirs. Both are negative reflections of the society of their day—no more.

How negative and unproductive that religion was we may see by comparing, for instance, the Scotland of Columba’s time with the Scotland of the 16th or 17th centuries; and both with modern Scotland. A thousand years of Christianity did less to civilize the country than, for instance, a few decades of good communications by land and sea. But of course there were many other factors involved.

Columba’s character was undoubtedly strong and influential; he

²⁶ *Liber Hymnorum*, quoted by Reeves, p. 252 (11th century MS., but ‘the prefaces [where the battles are referred to] have historical value only as evidence of traditions. There is no proof of the authenticity of the hymns attributed to Columba’; A. O. Anderson, *Early Sources of Scottish History*, I, 1922, LXXII, LXXIII).

²⁷ Reeves, 255.

²⁸ *Ibid.*

²⁹ See Gregory of Tours, *Hist. Franc.* IV, 41; V, 17.

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may in addition have had personal charm. But his historical importance and that of his fellow-missionaries, though admittedly great, have been grossly exaggerated for purposes of religious controversy.

MIRACLES OF COLUMBA, with page-references to Reeves's *Adamnan* (edition of 1857)

Water into wine, 103-5.

Sour apples into sweet, 105.

Corn planted after midsummer and reaped early in August, 106-7.

Broken bone mended by holy water (*benedictio*), 111-3.

Illness cured by a charm (*benedictio*), 113.

Rock-salt (*a sancto benedicta*) and beams unburnt, 114.

Book written by him unharmed by 20 days in river, 114-6.

Another similar miracle, 116-8.

Water from rock, 118.

Converts a bad spring into a good one, confuting the *magi*, 119.

Allays a storm when at sea, 119-20.

Another similar, through agency of Cainnich, 120-2.

Sends Cainnich his *baculus* miraculously across sea, 123.

Provides favourable winds on same day for two saints going in opposite directions, 124-5.

Asked to bless milk; accident, caused by demon lurking in empty pail, because boy did not make sign of cross; Columba blesses half empty pail, miraculously filled, 126.

Milk from an ox proved to be blood, the ox cured, 126-7.

Cures nose-bleed, 127-8.

Causes a large fish to be caught (two miracles, more or less similar), 128-30.

Blesses a poor man's heifers and foretells great increase, 130-1.

Another similar miracle, 131.

Blesses a barn, 230.

Curses a brigand and foretells his shipwreck (successfully), 132-4.³⁰

Foretells death of a wicked man before eating autumn pork, 134-5.

Tells at a distance of the death of one who tried to kill him, 135-7.

Foretells the immediate death of a murderer, 137-8.

Holds up the rush of a wild boar in a wood in Skye, 138-40.

³⁰ There is a strong suggestion that in this and the three ensuing miracles the wish was magical father of the thought, and had a causative influence on the result.

THE MAGIC OF COLUMBA

- Does the same of a beast in the river Ness, and thereby proves superior efficacy of the god of the Christians before *gentiles barbari*, 140-2.
Foretells future immunity of men and *pecora* from snake-bite, 142.
Blesses an iron tool (by request) so that it cannot harm men or *pecora*, 143.
Foretells that Diormit, when ill, shall survive him, 144.
Foretells that Finten, when ill, shall survive him, 144.
Brings back to life the dead son of a recent convert, to the confusion of the *magi*, 145-6.
Threatens Broichan (*magus* of Brude) with death, 146.
Finds a white stone in the Ness and endows it with magic healing properties, 146-7.
Cures Broichan with it (note use of term *benedictio* for the stone itself), 148.
Sails up wind and publicly confutes Broichan, 148-50.
Opens the *portus munitiois* of Brude with the sign of the cross, 150-2.
Opens a door in a monastery in Ireland, 152-3.
Blesses a stake for a poor man, which impales stags, a dog, a goat, a salmon and a crow, 153-5.
Foretells and possibly assists miraculously the return of a leather milk-pail by the sea, 155-6.
Foretells events and, through Libranus, controls wind for sailors, 156-63.
Makes up a matrimonial quarrel, 164-6.
Provides by prayer a favourable wind for Cormac's return, 170-1.
After death brings rain after a drought, 174-6.
After death affects the course of the wind (three separate occasions), 176-82.
Immunity of Picts and Scots from the plague attributed to Columba, 184.

Simonides, Aeschylus, and the Battle of Marathon

by J. L. MYRES

Wykeham Professor of Ancient History, Oxford

IT is not often that lost works of two famous writers can be recovered simultaneously, and recognized without mention of the name of either on the monument they adorned. But in *Hesperia*, the Journal of the American School of Classical Studies at Athens (II. 4, 1933, p. 480 ff.), Dr James H. Oliver has made out a good case for the identification of epigrams composed by Simonides and by Aeschylus to commemorate those Athenians who fell at Marathon.

As long ago as 1855 the Greek scholar A. R. Rhangabé published¹ a fragmentary inscription found in a courtyard off Hadrian Street. There were four lines of verse, two at the top of the dressed front of the block, two engraved subsequently across the panel of pecked dressing, which had been smoothed away to receive them: the letters were however in the same style, though rather rougher, so the additional lines must have been cut very soon after the stone was erected. As the word 'Persians' occurred in the later inscription (and, as now seems possible, also in the earlier) the monument must have belonged to the period of the Persian Wars, and with this date the style of the letters agrees.

On 8 December 1932, another piece of the same monument was found in the American excavation of the Athenian Agora, built into a modern house. It contains the left hand edge of the block, and the beginnings of all four lines, but there are 15-20 letters missing between the two extant portions. Enough however is preserved to show that each line was an elegiac couplet, and that *both* elegies referred to an occasion when the valour of Athenian land-troops saved Athens and

¹ *Antiquités Helleniques*, II. Athens 1855.=*Inscr. Graecae*, I. 333.

SIMONIDES, AESCHYLUS, AND MARATHON

all Greece from Persian conquest.² This victory can only have been the Battle of Marathon : for Salamis and Mycale were sea-fights, and at Plataea Spartans and many other Greek contingents fought.

The opening words, referring to 'these men's valour', show that the block formed the base of a memorial stone, inscribed with the names of the fallen, like that of the men of the Erechtheid tribe in the miscellaneous fighting of 'the same year' 458 B.C.³ That it does not refer to 'these men' themselves, shows that it was a cenotaph, and confirms the attribution ; for the men who fell at Marathon were buried on the battlefield, under the mound you see there still.

Now the ancient *Life of Aeschylus* says there had been controversy over the reason why Aeschylus left Athens for Syracuse many years after. Was it because he was defeated by Sophocles in a dramatic competition, or because the epigram of Simonides was preferred to his for the Marathon monument? It is a silly bit of literary gossip. But was there a competition for this epitaph, and was it true, as the writer goes on to say, that the 'refinement of emotion' which elegy demands was 'alien' to the genius of Aeschylus?

No extant epigram attributed to Simonides can be recognized as written for the Marathon monument ; and for a very good reason. His works were not collected from the places where they stood till long after his time ; and the Marathon monument is not likely to have survived the Persian occupations of Athens in 480 and 479. If it had, we can hardly imagine that it would not have been treasured, and its inscription transcribed in due course. Pausanias, in Roman times, saw a list of the fallen on the Mound at Marathon, but if there had been an elegy of Simonides there, he would surely have quoted it.

That the two original lines on the monument in Athens were the work of Simonides is confirmed by the characteristic use of ἀρετή for individual excellence of character, which is attributed him in a well-known passage in Plato's *Protagoras* ; and also by the 'deep emotional

² Here is the full text, in the archaic Athenian spelling, but accented.

(1) ἀνδρῶν τῶνδ' ἀρετὴ [.] αἰεὶ [.] Περσὶν?]

(2) ἔσχον γὰρ περὶ τοῖς τε[ν βαρβαρόφονον ἀντὶ] ν : ἡελλά[δα μ]ε πᾶσαν δούλιον
ἐμαρ ἰδεῖν]

(3) ἐν ᾧ τοῖς ζαδαμ[δοι . . . μέγα κῆδος] ἡότ' αἰχμὲν στῆσαμ πρόσθε πυλῶν
ἀν[.]

(4) ἀνχίαλομ πρῆσαι ρ[.] ἄστυ, βῆαι Περσῶν κλινάμενο[ι δύναμιν]

³ *Corpus Inscriptionum Atticarum*, I 433. = *Inscr. Graecae*, I². 929.

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effect achieved without recourse to pretentious language ' which the critic Dionysius of Halicarnassus attributes to him.

But why was another epigram cut on the same stone, subsequently and at some cost to the neatness of the monument ? There must have been some very cogent reason. And how did the story arise, that Aeschylus was defeated by Simonides in this competition, because his work was deficient in the ' refinement of emotion ' that elegy required ?

It does not need much acquaintance with the tragic diction of Aeschylus to recognize the reverberant phrases ' stablsh their spear-head before the gates ' and ' burn the brine-fringed city ' ⁴ or the unique and almost untranslatable word in the third line. Not much ' refinement of emotion ' here : but enough of Aeschylus' own quality to force public recognition, or at least to make the judges, or friends of Simonides, insist that Athenians should have opportunity to decide for themselves.

⁴ αἰχμὴν στῆσαν πρόσθε πυλῶν : ἀγχίαλον πρῆσαι : ζαδαμ . . .

Aboriginal Rock-Carvings in Tasmania

by A. L. MESTON

WHEN Tasmania was first settled in 1803, the English found a primitive race with an early Palaeolithic civilization living there. Within forty years these aborigines were practically exterminated, and a race, the study of which would have thrown much interesting light upon prehistoric man, was allowed to pass away with barely a comment, and with a singular lack of observation by the settlers.

There has always been considerable doubt whether this race expressed themselves pictorially before the advent of Europeans. Ling Roth, indeed, in *The Aborigines of Tasmania*, after citing most of the evidence that exists, goes so far as to say that the question of the existence of drawings before the coming of Europeans 'is practically an open one, for the evidence is not satisfactory'. But in the last three or four years the discovery of rock-carvings in two distinct and widely separated districts has produced evidence that is conclusive.

Where the river Mersey runs into Bass Strait, close to the town of Devonport, the western shore is prolonged into a rocky headland known as 'The Bluff', which, very low where it joins the mainland, extends seaward for 633 yards, and runs up to a height of 74 feet. This promontory is the site of a large number of aboriginal rock-carvings. The remains of a fairly extensive midden in the southwest corner, but beyond the precincts of the Bluff itself, give ample evidence of aboriginal occupation, and until quite recent years the place remained very much as it was when the aborigines frequented it. Sand dunes covered with boobyallas afforded shelter from all winds, and behind lay a little fresh-water lagoon fringed with tea trees (*melaleuca*). In front a bank of shingle, composed in the main of quartzite pebbles, provided material for their stone implements, and the nearby reefs furnished a liberal supply of shell fish. The abundance of food and water, and the warmth of the situation marked this as a favourite resort.

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With the exception of the steep northern face rising from the sea, the Bluff was originally covered with a forest of eucalypts and a moderate undergrowth, a small part of which still remains. Many of the carvings are incised upon the northern face where the rock masses have always been free from trees or shrubs ; others are on rocky outcrops in what was originally forest, and others are found in the forest that still remains.

The Bluff is composed of diabase, a hard igneous rock, and in this difficult material the carvings are made (PLATES I-II). All are cut on horizontal faces of rock and are distributed over the whole area of the promontory. There are 75 distinct carvings in all, but there is evidence from the remnants of many others that at one time the number was much greater. The condition of those extant varies greatly ; some are little more than mere lines, while others are deeply incised. Those on the seaward face of the headland are swept by spray every storm, and weathering is rapidly destroying them, for the surface of the diabase is everywhere flaking off, as some of the photographs clearly show. A remarkable feature of the carvings is the depth of some, the deepest reaching 58 millimetres, while ten others exceed 15 millimetres. This great depth, moreover, is combined with a comparatively narrow width, and is, in part, I have no doubt, due to weathering. In some the edges are sharp and the sides steep, in others the contours are rounded.

Although diabase is exceedingly hard, yet a soft crust is formed upon it by weathering, and this may be readily worked with crude stone implements, the only tools that the aborigines possessed. The depth of the carvings therefore would point to some of them being of considerable age, for it would seem that they were gradually deepened from generation to generation as weathering permitted. It does not seem possible that they could be otherwise incised. Although no carvings hitherto found in Australia are in diabase, but are cut in soft limestone, slate, or sandstone, it is interesting to recall that in the *Illustrated London News* of 6 April 1929 an illustrated account is given of an engraved diabase boulder of the Stone Age, recently discovered in the western Transvaal.

While it is impossible to say definitely what the carvings represent, some of them seem to aim at depicting natural objects, among which we may perhaps distinguish a fish, a snake, and the moon ; others are variants of the circle and the oval. And even these latter may be conventionalized drawings of objects well known to the aborigines. Occasionally the artist has made use of a natural unevenness in the rock to make his design stand out the more, but cracks in the rock have

ABORIGINAL ROCK-CARVINGS IN TASMANIA

not been used. In every design the natural cracks are transverse to the carvings, a feature well shown in the photographs. The size of the carvings varies greatly, as may be judged by the six-inch rule.

The other carvings are on the west coast, 90 miles as the crow flies from those at Devonport. Twelve miles south of Cape Grim there projects into the sea a massive trachy-dolerite headland, which although a little more than 500 feet high, is so prominent a feature of the landscape that it is called Mount Cameron West. Two miles north of this are two outcrops of friable calcareous sandstone 150 yards apart, small in area and of low elevation, on which the carvings are found. The rock is soft and easily worked, but hardens on contact with the air. In consequence of its friable nature many of the carvings are badly weathered, and all show marks of erosion.

Though the circle is a motif common to each group, there are marked differences. The Devonport carvings are in diabase, are cut on horizontal faces, and in the main exist as units ; the Cameron West carvings are in friable calcareous sandstone, are cut without any respect to the surface plane, and are massed together, sometimes in rude geometric designs. Moreover at Cameron West are found features absent from the Devonport carvings, namely groups of three straight lines roughly parallel with one another, and rows of indentations.

At the southern sandstone outcrop the aborigines have not made use of the main mass, but of two detached blocks lying at its foot. Their position in relation to the main mass is clearly shown in the photographs (PLATE III). Here occurs the most striking design, which entirely covers a block 177.8 cms. long and 142.25 cms. wide (PLATE IV). Originally this was larger, for a considerable portion has broken away from the lower edge and lies in fragments at the foot. From this block we see the method employed in making the carvings. Indentations or punch marks are first made close together, apparently with a quartzite punch, driven by a stone used as a hammer ; then a continuous line is made by connecting up the holes so formed. Several chisel-shaped pieces of quartzite lying around would be admirably suited for the purpose. The northern outcrop, higher and more conspicuous than the other, is just a mass of carvings. The cliff face and detached slabs, no matter at what angle they lie, provided there is a smooth surface, have provided a medium for the artist. In the main mass there is a shallow cavern, upon the roof of which, quite out of reach of one standing below, two circles have been carved. One mass, approximately twelve feet square tilted at an angle of about sixty degrees, is entirely covered

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with circles and concentric circles, some badly weathered, others in a good state of preservation.

This district, like the Bluff at Devonport, was a frequent haunt of the aborigines. The whole area, from the carvings to Mount Cameron West, is littered with shells, the remnants of their feasts, and with the cores and rejects from the manufacture of their stone implements. When the aborigines roamed along this shore it was a beautiful place. Sand dunes clothed with boobyallas and other indigenous shrubs extended along the whole area, while immediately behind them were park-like spaces, the pasture ground of mobs of kangaroos. Here was a place open to the sun and affording shelter from the bitter winds. The reefs nearby provided a bountiful supply of shell fish ; the lagoons behind the beach teemed with black swan and wild duck ; and the district abounded with wallaby, kangaroo, and opossum. Even today, although vast sand-blows begun by cattle breaking down the dunes and allowing the wind free play have destroyed the face of the country, in places for miles inland, the lagoons which remain still teem with wildfowl, and kangaroo, wallaby and opossum are plentiful in the neighbourhood. It is, perhaps, significant that several aboriginal skulls have been discovered here, and on my last visit I found the bones of a hand, the larger bones of the leg, and a mandible, objects which the aborigines carried with them as charms.

A careful search of over 250 miles of coast has failed to reveal carvings anywhere but in these two localities, and the question we naturally ask is why the Bluff near Devonport and the outcrop near Cameron West should have been selected.

So far as the Bluff is concerned a possible explanation is that its commanding position, its remarkable configuration and comparatively restricted area marked it out either as a sacred place or a place of assembly. Unfortunately we have but scant records of anything relating to the religious beliefs or tribal life of the aborigines. J. E. Calder, however, in *The Native Tribes of Tasmania*, describes such a meeting place and a ceremonial tree west of the Tamar only some 30 miles away. His words are apposite here. 'The stockkeepers found a kind of spire curiously ornamented with shells, grasswork, etc. The tree of which it is formed appeared to have much labour and ingenuity bestowed upon it, being by means of fire brought to a sharp point at top and pierced with holes in which pieces of wood are placed in such a manner as to afford an easy ascent to near the top where there is a commodious seat for a man. At a distance of 15 or 20 yards

ABORIGINAL ROCK-CARVINGS IN TASMANIA

round the tree are two circular ranges of good huts composed of bark and grass described as much in the form of an old-fashioned coal scuttle turned wrong side up 8 feet or 10 feet long. There are also numerous small places the form of birds' nests, made of grass, having constantly fourteen stones in each. The circular space between the spire and the huts has the appearance of being much frequented, being trod quite bare of grass, and seems to be used as a place of assembly and consultation'. For such a purpose the Bluff is admirably adapted, and, in the whole island, I know of no other place so suitable.

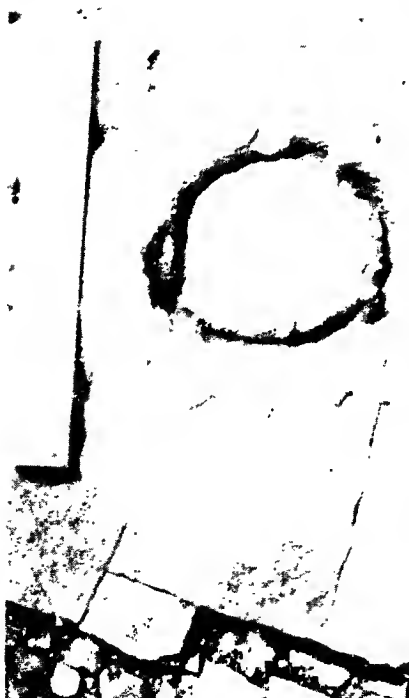
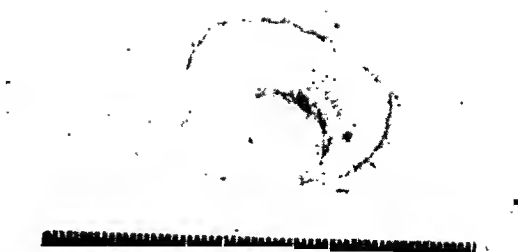
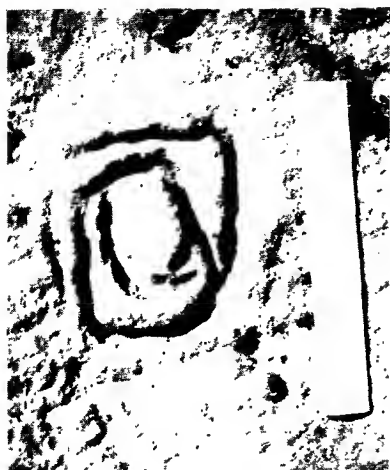
This, however, will not explain the position of the carvings near Mount Cameron West. The sandstone outcrops are quite insignificant, and in this respect are in marked contrast with the basalt headland to the south and some remarkable quartzite hills to the north; but there is this to be said, they constitute the only sandstone to be found in this part of the island. One feels that to a people in whose lives stones and rocks played so active a part such an occurrence would be significant. As in the opinion of many leading anthropologists the Tasmanian aborigines were of Melanesian origin, it is instructive to learn of the beliefs in Melanesia. Bishop Codrington, who spent 25 years there, writes of the superstitious regard for stones commonly shown by the Melanesians, and points out that 'stones as they naturally lie', because they strike the fancy as being out of the common, are frequently the object of veneration. If this were so in Tasmania, as it may well have been, it would account for the choice of this site.

And what, we ask, was the purpose of the carvings? Were they made at the whim of the artist to pass away an idle hour, was he seeking a means of self expression, or had they a greater significance? Art for art's sake, it seems to me, will not explain them. I see in them something strictly utilitarian, something arising out of a belief in magic. And here a recent writer, Dr J. R. Love, who has spent many years living in close contact with the Worrora tribe of northwest Australia, supplies us with important evidence. All the pictures made by the Worrora tribe except those of the human being represent some article of food, and even those of the human being 'the Wonjuna' are made to ensure that rain will not fail. 'The belief is,' he writes, 'that wherever the picture of an object of food is preserved in a picture cave, there that object will continue to flourish and increase. An object that recurs not infrequently, and that appears meaningless, till explained, is the liver of a stingray, a favourite article of food. When

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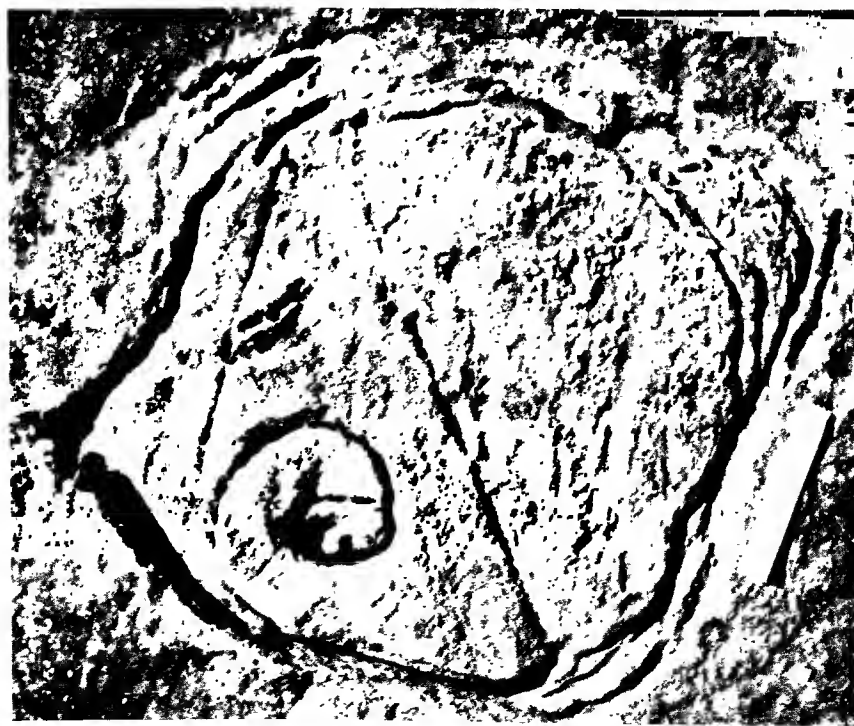
explained as the liver it is seen to be quite a fair picture of a liver. So also with some of the edible roots. But quite a number of the pictures are conventional representations of some article of food, or some part of the body, which do not to the European eye bear any resemblance to the object represented'. Bishop Codrington, also, supplies valuable data. 'The religion of the Melanesians consists, as far as belief goes, in the persuasion that there is a supernatural power about belonging to the region of the unseen; and as far as practice goes, in the use of means of getting this power turned to their own benefit. There is a belief in a force altogether distinct from physical power, which acts in all kinds of ways for good and evil and which is of the greatest advantage to possess or control. This is Mana. It may act through the medium of water, or a stone, or a bone. All Melanesian religion consists, in fact, in getting this Mana for one's benefit'. It seems probable that the Tasmanians possessed some such outlook, and art to them was a means of encountering and overcoming the Great Unknown.

PLATE I



ROCK CARVINGS AT THE BLUFF, DEVONPORT, NEW ZEALAND

PLATE II



ROCK CARVINGS AT THE BLUFF, DEVONPORT, NEW ZEALAND

The one on the left-hand is the deepest of all

PLATE III



ONE OF THE MOST STRIKING OF THE ROCK CARVINGS NEAR MOUNT CAMFRON WEST, NEW ZEALAND

PLATE IV



OUTCROP SHOWING ROCK CARVINGS, MOUNT CAMLON WEST, NEW ZEALAND

The Fenland Frontier in Anglo-Saxon England

by H. C. DARBY

IT would seem that the Anglo-Saxon invasion of a great part of eastern Britain in the fifth century radiated fan-wise from the gateway of the Wash and of the Fenland Gulf. If this is true, it is not surprising. The position of the continental base of the Anglo-Saxons made the area a natural entry into the Midland plain; and the invaders, with the Wash behind them, gazed upon no unfamiliar scene. The region into which they came may not have been so different from their former homeland on the flats of northern Germany, the homeland which Bede¹ tells us they had so completely deserted. They penetrated by way of the Fenland rivers, up the Nene, the Welland, the Ouse, and the Witham, and this big spread was supplemented to the north and to the south by the smaller river entrances, the Bure, the Yare, the Waveney, the Humber and so on. The archaeological finds, as plotted by Mr Thurlow Leeds,² are located along the courses of navigable streams and their tributaries, and are disposed concentrically around the Fenland. Dr Cyril Fox³ has moreover indicated affinities, during the earlier Saxon period, between the opposite shores of this marshy gulf. All had changed, however, when the tribes emerged into the light of history. The Fenland basin, characterized at an earlier epoch by a certain cultural unity, had now become a frontier region, separating peoples and exercising a repelling action revealed in the making of the Anglo-Saxon States. Kingdoms, finding their limits here, partitioned the marshy wastes between them, and the barrier of the Fens became a permanent feature in the political geography of the Anglo-Saxon Heptarchy.

¹ Bede, *Ecclesiastical History*, bk I, chap. 15.

² *Archaeology of the Anglo-Saxon Settlement*, 1913, p. 18.

³ *Archaeology of the Cambridge Region*, 1923, p. 315.

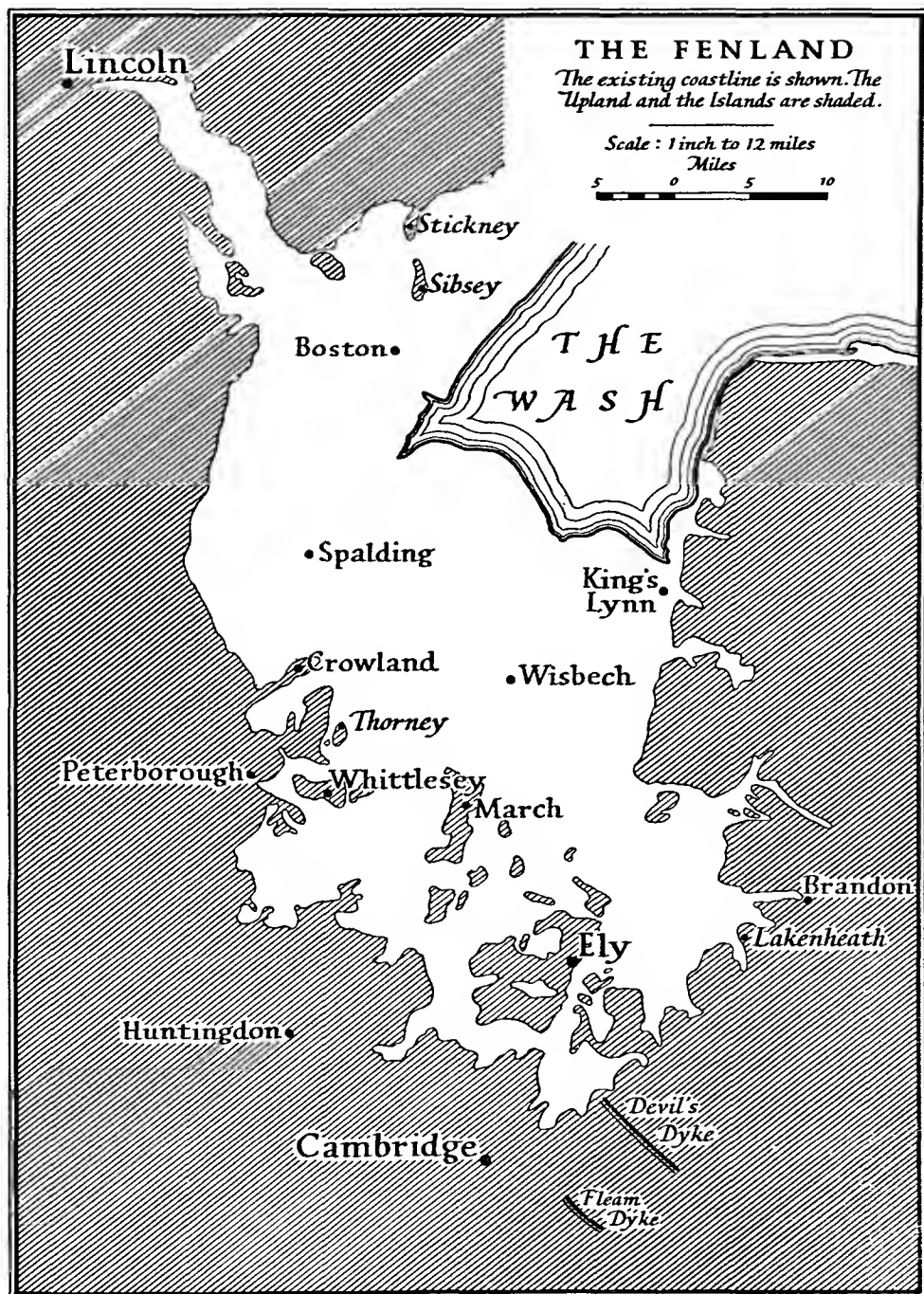
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One hundred years (450–550) passed between the first coming of the Anglo-Saxons and the time when they had settled down with some semblance of permanency. During that century, three phases culminated in the changed status of the Fenland amid the events of the surrounding country : from the confusion of arrival there first emerged certain groups (possibly tribal) and these by association and amalgamation became the States of a later period. Whether they be history or legend or both, the accounts⁴ of the invasion are consistent in giving the impression of a settlement of small warring parties, separated from one another by woodland, fen, or heath. Under the stress of the increasing population, the calls of tribal kinship, the fortune of battle, and the growing importance of agriculture, these conditions gave way to increasing stability. At any rate people ceased to be separated in any military sense, and the settlements of, say, the Honingas and the Wramplingas in Norfolk no longer were at war with one another. The large entities formed by their coalescence, however, still had as their *marks* the more difficult obstacles, and still had as their enemies the folk who lived beyond those obstacles. We can form some idea of this tribal *mêlée* from the early document (7th century ?) known as the ‘ Tribal Hidage ’.⁵ Here is mention of the Wigesta, the Faerpinga, the Sweordora, the North Gyrwa and South Gyrwa, the Spalda, the Arosætna, together with other units in the rest of England, and it was these tribes that, by a further process of coalescence, passed into still larger units to become the States of the Heptarchy. In East Anglia the very names Norfolk and Suffolk speak of two large groups, and there were similar divisions in Mercia and Northumbria.

Thus by an ever-widening circle of coalescence were East Anglia and Mercia formed ; Northumbria too. The story of the process indicates the way in which the Fenland became a barrier. The region might have afforded the invading tribes an entry, but in the political differentiation that followed, other possibilities emerged. From the veneer of folk-settlement, that extended in varying thickness from the Midlands to the East Anglian shore, portions coagulated into political entities ; the small marks of forest and heath were successively

⁴ Henry of Huntingdon, *Historia Anglorum* (ed. by Arnold), p. 48 ; Matthew Paris, *Chronica Maiora* (ed. by Luard), I, 237. See Kemble, *The Saxons in England* (1876) I, appendix A ; Ekwall, *English Place-names ending in Ing* (1923), p. 121 for a discussion of Kemble's theory.

⁵ *Cartularium Saxonicum*, ed. Birch, I, 414.



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obliterated, likewise the larger ones, until the Fenland remained as the great obstacle between the big states.

The Fenland in origin was essentially a flooded alluvial plain which had for its limits the harder rocks around, Chalk to the north and south, and, in the west, resistant Oolite grits. The surface of this plain was uneven and its higher portions projected to form the islands of the historical period. It emerged from the complicated events of the Ice Ages with its basin nature unchanged; subsequent time saw its filling up by the various agents of sedimentation, until there remained a belt of silt bordering the shores of the Wash and an expanse of peat behind. Its rôle as a frontier involves three considerations—economic, military and psychological.

Economic activity, the utilization of the land, is the bond between the soil and the state. 'We see the state itself born as a rule out of the exploitation of the soil'.⁶ Whatever they had been on the continent, the occupations of the Anglo-Saxons when they settled in this island were in the main agricultural and pastoral; the Saxon charters and documents give ample proof of this. For these pursuits, the potentialities of the soil upon which the invaders settled varied immensely. The land on either side of the Fenland had moderate possibilities; but the Fen itself would seem to have been at this time without any agricultural significance. The work of the Fenland Research Committee is establishing the fact of the Roman granary of the Fenland. But in the eighth century it was essentially a 'wide wilderness',⁷ a waste untilled, devoid of settled habitation.⁸ Whether the transformation was due to physical or to political causes, we cannot say. The Saxon remains of the Cambridge area in general indicate a choice of the most fertile land.⁹ It would appear as if this selective action operated on a large scale with political results. An index of the relative intensity of the settlement is furnished by the size of the Hundreds. Those of the Fenland are anything from two to four times as large as those of the surrounding upland. The following are typical:—

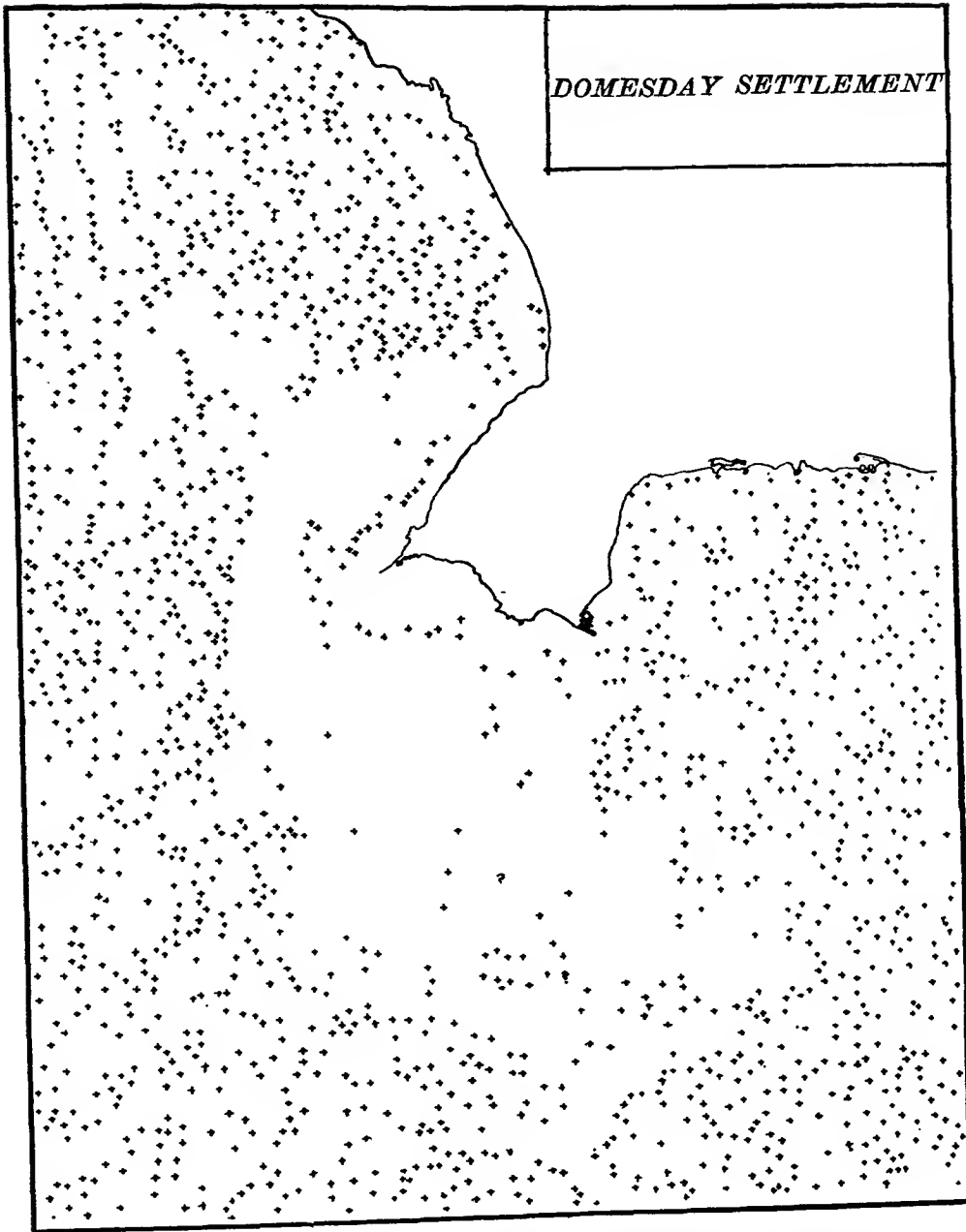
<i>Fenland</i>	<i>Upland</i>
Ely, 44,420 acres.	Humbleyard (Norf.), 23,000 acres.
Wisbech, 70,790 acres.	Whittlesford (Camb.), 10,928 acres.

⁶ Febvre, *Geographical Introduction to History* (1925), p. 87.

⁷ Felix, *Life of St. Guthlac*, ed. by Goodwin, p. 21.

⁸ *Codex Exonensis*, ed. by Thorpe, pp. 115, 120, 156, 158; ed. by Gollancz, pp. 117, 123, 159, 161.

⁹ Fox, *op. cit.*, p. 275.



The coastline at the present day is shown ; in all probability the Domesday coastline lay considerably behind this, the villages bordering the coast lay along the belt of silt that separated the peat fen from the sea. The only settlements within this peat region were upon the islands. Adjacent to the middle portion of the fen on the east, lay the Breckland which likewise had unoccupied tracts of country.

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The figures of the Tribal Hidage likewise indicate lightness of settlement, while the map of the Domesday vills, though compiled from material some centuries later in date, testifies to the same thing. The region became a perfect example of a 'natural frontier'. Its inhospitable nature provided the greatest of all barriers between societies, that of a human desolation, and this it was that constituted its real separating effect. In stating some principles of state formation, Vallaux¹⁰ has declared : ' Le sol est la base nécessaire à l'activité des groupes sociaux organisés en vue d'une action commune, que nous appelons états '. The Fenland lay on the confines of the available ' necessary bases '.

Barrier boundaries have their military aspect. A practically uninhabited area forms a scientific boundary because by holding neighbouring peoples apart it reduces that contact and friction which so often provoke hostilities. The Fenland in Saxon times constituted such a frontier, and the mutual protection it afforded to the States on either side was all the more important in an age when war constituted the normal form of inter-state relations. From the soldier's point of view, the barrier of the fens was nearly absolute. ' They were accessible ' wrote Matthew Paris¹¹ centuries later, ' neither for man nor beast, affording only deep mud '. No great body of men dared venture across the treacherous and trembling marsh. And a measure of the obstacle is to be found in the constant warfare that raged in the little gap between forest and marsh, which lay to the south of the Fenland. Here was the point of live contact between East Anglia and Mercia where the frontier sometimes narrowed to a single line—the Fleam Dyke built to make good a deficiency of nature. The successive reconstructions¹² of the dyke seen in section bear ample testimony to much fighting between the powers on either side. Abbo of Fleury in the tenth century declared of East Anglia ' On the south and east it is surrounded by the ocean; on the north by vast fens and swamps; on the west it is contiguous to the rest of the island, and therefore accessible; but to prevent frequent hostile incursions, it is fenced with a mound like a very high wall '.¹³ But he had in mind the Devil's Dyke to the east.

¹⁰ *Le Sol et l'Etat* (1911), p. 38.

¹¹ *Chronica Maiora*, anno. 1256.

¹² Fox, *op. cit.*, p. 294.

¹³ *Memorials of St. Edmund's Abbey*, ed. by Arnold, I, 1-6. See Camden, *Britannia* (1607) p. 360 :—' This (*i.e.* the wall) for many miles crosses that plain that goes by the name of Newmarket Heath, a place most liable to invasion beginning at Rech, beyond which the country is fenny and unpassable, and ending just by Cowlidge where the woods stop all marches '.

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These considerations were reinforced by psychological factors. Though marshland had been for generations the natural habitat of the Saxon, it never failed to inspire the Saxon heart with fear. In imagination he peopled the marsh with demons and dragons, ready to do great harm to man, and his fears are revealed in the early literature of the German marshes. Nor did the invaders leave this terror behind them. Late in the Saxon period¹⁴ an eighth-century monk tells how :

There is in Britain a fen of immense size, which begins from the river Granta (*Grante*) not far from the city, which is named Grantchester (*Granteceaster*). There are immense marshes, now a black pool of water, now foul running streams, and also many islands, and reeds, and hillocks, and thickets, and with manifold windings wide and long it continues up to the north sea . . . Guthlac . . . inquired of the inhabitants of the land where he might find himself a dwelling place in the wilderness. Whereupon they told him many things about the vastness of the wilderness. There was a man named Tatwine, who said that he knew an island especially obscure, which oft-times many men had attempted to inhabit, but no man could do it on account of manifold horrors and fears, and the loneliness of the wide wilderness.

Conditions were similar in the northern fens. When St. Botolph came to Ikanhoe near Boston, he likewise found the place infested with devils of various kinds.¹⁵ The incredible nature of these tales is irrelevant to the argument ; the spirit which created them is an indisputable fact. They show something of what the barrier of the fens meant in the lives of the people of this age. Only familiarity with the region in its most sombre aspects can do justice to these fears of the early Saxons. Many centuries did not assuage their terror ; and at last the horror of the fen passed into tradition—so deeply was it grounded in the Saxon mind. Nor were all the horrors imaginary. They had indeed a very substantial foundation ; for the Fenland was a pestilential place ‘ oft-times clouded with moist and dark vapours ’.¹⁶ Many are the references to the unhealthy nature of the region.¹⁷ Ague and malaria with their hallucinations made the life of the fen-man very miserable ; and it is

¹⁴ Felix, *Guthlac*, (Goodwin), p. 21. Grantchester refers not to the village of that name but to Cambridge. The Latin version has ‘ haut procul a castella quod dicunt gronta ’ with variants of *gronta*, *bricc* added over line ; and *nomine gronte*. See *Memorials of St. Guthlac*, in Latin, edited by W. de Gray Birch, p. 17.

¹⁵ *Acta Sanctorum ordinis S. Benedicti*, ed. by Achery and Mabillon, III, 5.

¹⁶ Felix, *Guthlac*, ed. by Birch, p. 17. Compare Beowulf’s account of the Frisian shore : ‘ This is no pleasant spot. Thence ariseth aloft the vaprous blend ; and dark, to the clouds ’.

¹⁷ *Codex Exon.*, pp. 120 and 123 of Thorpe’s edition. But see Gollancz, pp. 123 and 125. See also *Acta Sanct.*, p. 6.

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little wonder that St. Guthlac 'was greatly troubled within him about the undertaking he had begun, namely to dwell there alone in the wilderness'.¹⁸

Economic, military and psychological influences produced their results. The Fenland, spurned and held in a fearful contempt, decreed to be a wilderness, became a frontier zone. But the very reasons for which men in most cases avoided the marsh as a place in which to settle, attracted other people who, willingly or otherwise, shunned the settled areas around. Denominated as unfit for occupation by most people, the region gathered to itself a population all its own. Forming the periphery of two not too firmly welded States, its inevitable destiny was to become a refuge for the lawless; and the many fen islands provided haunts for the exiles that came thither:

Wide is this waste
Its exiled seats are many,
Hidden homes
Of miserable sprites;
They are the faithless ones
Who these cots inhabit.¹⁹

But, bad as it was, to them the waste was home, a base for further depredation,

When they from wanderings
Weary came,
Rested a space of time,
In repose rejoiced,²⁰

and then set out again, roving about in bands under leaders.²¹ Some of these brigands may have been remnants of the autochthonous population, and indeed it would seem that of all portions of the English plain, the Fenland was the best suited to become a refuge for the fugitive Britons. Many indeed have declared this to have been the case. Bentham,²² for example, says that 'the Isle of Ely was possessed by the old Britons long after the Saxons had taken hold of England', and a variety of evidence has been adduced to support his view.

¹⁸ Felix, *Guthlac* (Goodwin), p. 29.

¹⁹ *Codex Exon.*, p. 120 (Thorpe); and Gollancz, p. 123.

²⁰ *Ibid.*, p. 115 (Thorpe); and Gollancz, p. 117.

²¹ *Ibid.*, pp. 118, 156-7 (Thorpe); and Gollancz, pp. 121, 159.

²² *Cathedral Church of Ely*, app. I, 51. See Stukeley, *Itinerarium Curiosum*, p. 56: 'Tis probable that our fens and morasses might be a long security to us against the Saxons'; Freeman, *Norman Conquest* (1876), iv, 470; and Conybeare, *History of Cambridge* (1897), p. 427, etc.

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Beddoe,²³ on the basis of anthropological observation, concluded that 'there is some ground for suspecting that a Welsh or aboriginal population lingered longer in the Fens than in the east of England generally.' Haddon²⁴ too, was also struck by the proportionately large numbers of short dark-haired, dark-eyed persons in the locality'. Any observations that might be made however are complicated by great difficulties, for the Fenland is a region into which people have continually migrated—Englishmen of many periods and places, Dutchmen with Vermuyden, Scotchmen after the battle of Dunbar, and those French Huguenots described by Kingsley²⁵ as 'dark-haired, fiery, earnest folk, whose names and physiognomies are said still to remain about Wisbeach, Whittlesey and Thorney'. To demonstrate the rôle of a refuge land which the marsh might have played, it is not sufficient to indicate a Celtic element among its people; it must be shown that here Britons were more numerous than anywhere else in the English plain. It is difficult to do this, and apart from the general uncertainty of the evidence, it is most unlikely that the marsh provided a unique region of refuge amid the confusion of the Saxon arrival; it was too much in the main advance of the invasions.

At a later date however, when the states of East Anglia and Mercia had emerged, some communities of outlaws found homes in the frontier borderland of the Fenland; and among these there were not a few Welshmen. Guthlac of Crowland in the early eighth century 'dwelt lonely in that borderland, where he was a pattern unto many a Briton';²⁶ and there he found that these Britons, 'the deadly foes of the Saxon race, were disturbing the English people by their raids and widespread devastations'. On one occasion, in the days of Coenred, king of the Mercians, he

stood listening intently and caught words of the common people, and saw some bands of Britons approaching his dwelling. For in the course of his former life he had been in exile among the Britons so long that he was able to understand their strident speech. He hastened over the marshes towards his abode and almost at the same instant saw all his house enveloped in flames, and the Britons, intercepting his approach, began to poise in the air their sharp-pointed darts.²⁷

²³ *Memoirs Anthropological Society* (1869), pp. 458–9.

²⁴ *Study of Man* (1895), p. 45.

²⁵ 'The Fens', in *Prose Idylls* (1873), p. 119.

²⁶ *Poems of Cynewulf*, ed. by Kennedy, p. 268.

²⁷ Felix, *Guthlac* (Birch), p. 29; The British are 'brettonica' and 'britannica'. See also Goodwin's edition, p. 43. And also A. Gray, *On the Late Survival of a Celtic Population in East Anglia*, *Proc. Camb. Antiq. Soc.* 1911, p. 42.

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When the powers on either side were weak, the Welsh raids extended over the borders of the Fenland on to the villages of the upland around ; and in the treaty²⁸ which Aethelred made with the Danes, in 991, each party undertook not to aid the Welshmen. Even as late as the eleventh century these Britons were 'ravaging far and wide in the province of Huntingdon'.²⁹

It was inevitable that the states around the Fenland should interfere in the lawless region that separated them, if only for their own protection. These states were three in number, and their disposition in relation to the fens resulted in two groups of frontier oscillations :

- (1) East-west between East Anglia and Mercia.
- (2) North-south between Mercia and Northumbria.

These may be considered separately.

The balance of forces between East Anglia and Mercia attained an equilibrium which, though unstable, did represent a real compromise of power. At any rate it had elements of permanence, for the Southern Fens were normally partitioned into two spheres. Their more southerly portions, including Ely, were part of East Anglia ; while the district to the north of this, that is, the region about Crowland, Thorney and Whittlesmere, were part of Mid-Anglia or Mercia. The division was not without fluctuation. The fragmentary nature of contemporary records however does not permit a complete reconstruction of the oscillation, but enough remains to show the boundary in operation.

The first of the two States to emerge from the earlier confusion was East Anglia, founded in the first half of the sixth century.³⁰ In this early maturity the concentrating effects of definite boundaries are to be discerned. While Mercia existed only as the fragments of the Tribal Hidage, East Anglia had become a compact state ; a cohesion which seems to have had an earlier parallel in the identity of the Iceni who occupied the region centuries before.

The East Anglian state rose to prominence after 616, and the missionary activities of the East Anglians³¹ indicate that, during the early part of the seventh century, the Southern Fens were under their control. While they were building a church at Ely, the Mercians in

²⁸ *Cartularium Saxonicum*, 991.

²⁹ *Chronicon Abbatiae Ramesiensis*, ed. by Macray, p. LXXVII.

³⁰ Chadwick, *Origin of the English Nation* (1905), p. 172.

³¹ See *Anglia Sacra*, ed. by Wharton, I, 594 and 403.

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the west were consolidating. This growing entity absorbed the numerous tribes and units that passed under the name 'Middle Angles',³² until ultimately the heathen Mercian state reached the edge of the fen, and East Anglia was called upon to defend its sphere of lordship. Penda of Mercia savagely raided the borderland;³³ the peaceful activities of the East Anglian bishop in Ely were disturbed; and the island 'changed entirely into a solitary place', devoid of Christian churches. But the Mercian interlude was soon over;³⁴ East Anglia recovered its control of the Fenland; and towards the middle of the century (660) there is the terse statement of Bede: 'Ely is in the province of the East Angles, a country of about six hundred families, in the nature of an island, enclosed, as has been said before, either with marshes or with waters'.³⁵ There is no evidence to indicate the limit of East Anglian power; that it reached as far north as Boston is certain.³⁶

Bede³⁷ writing a little later declares that Peterborough was 'in the country of the Girvii'. 'The Girvii', wrote the Ely Chronicler³⁸ 'are all the southern Angles that inhabit the great marsh in which the island of Ely is situated'. Here, it must be admitted that he wrote a long time after the event. The trustworthiness of his statement is difficult to assess. At any rate the Girvii form one of the units mentioned in the Tribal Hidage. The fen included other of these units; in addition to the North and South Gyrwa, there were the Spalda and possibly the Sweordora and the Wigesta. The extent and relative position of these peoples are not all clear,³⁹ but at any rate there is sufficient testimony to show that their status, in relation to the kingdoms on either side, was a peculiar one. In the Tribal Hidage, East Anglia and the Gyrwa are entered as separate items. Other sources show the South Gyrwa under

³² Bede, I, 15; III, 21. *Saxon Chronicle*, 655 and 657.

³³ *Liber Eliensis*, ed. by Stewart, pp. 5, 23, 48; Bede, III, 18. *Saxon Chronicle*, 654; *Anglia Sacra*, I, 594.

³⁴ Penda was killed in 655. *Saxon Chronicle*, 655; Bede, III, 24.

³⁵ Bede, IV, 19.

³⁶ *Acta Sancta*, *op. cit.*, III, 5. The *Saxon Chronicle* for 657 declares that Mercia included Peterborough and 'these meres and lakes, Shelfermere, Whittleseymere and all the others which lie thereabouts'. But some of the passages in this entry are clearly of a late date.

³⁷ IV, 6.

³⁸ *Liber Eliensis*, p. 4.

³⁹ See Note at end.

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their own chieftain,⁴⁰ who had the power of disposing of his domains as he wished,⁴¹ and this political identity was paralleled by an ecclesiastical one. The Isle of Ely was likewise peculiar ; it was part of East Anglia, yet somehow distinct from it. Bede's phrase runs 'in regione quae vocatur Elge',—translated into Saxon as 'in þæm þeodlande þe is geceged Elige',—in the tribeland that is called Ely. In the diocesan organization of a later date, Ely was not included in East Anglia, yet its clergy normally made their profession to an East Anglian bishop.⁴² Similarly in the latter half of the seventh century there is every indication that it was under an administration separate from that of East Anglia. It would seem that Ely, in the idiom of a later age, was then a border territory subject to and defended by one party, though exposed to the ravages of another ; and as a border march of East Anglia it possessed a large amount of independence.

Nor was the situation without other features of frontier diplomacy. The Gyrwan prince, Tonbert, sought the hand of the daughter of the East Anglian king. Etheldreda was however much opposed to the proposal. But 'vincit parentum auctoritas' and, to appease the border chieftain, the alliance was concluded.⁴³ There is even rumour that the island itself was the dowry that accrued to Etheldreda, to say nothing of the East Anglians. We have only Thomas of Ely's word for this ; and though it may not be exact, the circumstances before and after⁴⁴ favour the idea that the marriage was a political necessity to East Anglia, a stroke of policy by which its western frontier was strengthened. When Tonbert died, Etheldreda began in 673 to build a monastery in Ely and to restore the old church⁴⁵ ; and in 695, when the Ely folk desired stone, they 'went on board ship, because the country of Ely is on every side encompassed with the sea or marshes, and has no large stones, and came to a small abandoned city, not far from thence, which in the language of the English, is called *Grantecester*'⁴⁶ ; it lay on the Mercian shore and was probably a relic of border warfare.

The eighth century was, as far as we know, a century of peace.

⁴⁰ Bede, IV, 19.

⁴¹ *Liber Eliensis*, p. 18.

⁴² Venables and Wood, *Diocese of Ely. Procs. Camb. Antiq. Soc.* 1891, p. 164.

⁴³ *Liber Eliensis*, p. 18.

⁴⁴ *Ibid.*, p. 31 *et seq.*

⁴⁵ *Ibid.*, p. 48. *Saxon Chronicle*, 673.

⁴⁶ *Liber Eliensis*, p. 64. See Bede, IV, 19, whose spelling is *Grantacaestir*.

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Of the petty wars and raids that went on, there is no record ; the reconstructions of the Fleam Dyke bear a silent testimony.⁴⁷ The only definite evidence shows the fens internally to be an unruly and lawless region, but little known in parts, and the resort of bandits and robbers. In the south, on the island of Ely, East Anglian influence continued undisturbed ; while to the north lay the Mercian sphere. Crowland 'on middan Gyrwan fenne'⁴⁸ was in the land of the 'Mediterranei Angli',⁴⁹ which was of Mercia. The century of peace, if indeed peace it was, was doomed to end in war. From 792⁵⁰ onward, the Mercian power was dominant ; until in 823⁵¹ the East Anglians sought the protection of Wessex and the day of Mercia was over.

Henceforth the kingdom of East Anglia began to be a part of the larger kingdom of England. The old ties of its people were replaced by wider allegiances. Yet still it retained a certain measure of its old life. Its last king was murdered by the Danes ; but though without a king, the region still had a separate witan, and seems to have been treated as one unit under a local earldorman.⁵² It emerged from the Norman confusion as one—the earldom of Norfolk and Suffolk.

The physical circumstances of the northern fens differed considerably from those of the south. Ely and the other isles were replaced by a monotonous expanse relieved only by the elevations of Sibsey and Stickney. Despite this lack of islands, however, the area was not devoid of opportunities for settlement ; here the marsh was of silt and not of peat. But north of the Fenland proper there exists a region which functioned as an island during the Saxon period. This was 'Lindsey', the 'eye' or island of the Lindisse, and it played a part between Northumbria and Mercia similar to the rôle of Ely in the south. The same two features emerged : continual fluctuation between the neighbouring powers on the one hand, and on the other hand the maintenance of a certain amount of unity and autonomy.

During the Saxon period Lindsey was physiographically all but an island. To the east was the sea ; to the north lay the Humber

⁴⁷ Fox, p. 294.

⁴⁸ *Hyde Register*, ed. by Birch, 88.

⁴⁹ Felix, *Guthlac* (Birch), p. 17.

⁵⁰ *Saxon Chronicle*, 792.

⁵¹ *Ibid.*, 823.

⁵² *Saxon Chronicle*, 1004.

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marshes where the waters of the Don, the Ouse and the Aire mingled in a waste of fen. On the south, fenland continued on either side of the Witham right up to Lincoln. To the west there were the marshes of Ancholme and Axholme. The position of the Isle of Axholme made it more easily accessible from Lindsey than from the north, and its inclusion within the shire of Lincoln, necessitating a curve in the county boundary, is the expression of this fact. Along the west only, for a short stretch of eleven miles, was Lindsey attached to the mainland. But even this isthmus was a land of sand and heath and it remained unreclaimed until late in the eighteenth century. The main geographical fact about Lindsey was its isolation.

Only recently was it realized that Lindsey, consistent with this isolation, emerged from the confusion of the Saxon invasions with its own line of kings. Professor Stenton,⁵³ after correlating various evidence, declares the fact as certain. There is evidence too of a certain amount of intercourse between the Britons of Lindsey and their conquerors, and also of a marked Celtic element among the personal names of the royal house. There may therefore be genuine historical significance in many references contained in the 'Lay of Havelok'. The gleeman's lay is recorded by Skeat⁵⁴ as 'the general result of various narratives connected with the history of Northumbria and Lindsey at the close or possibly the beginning of the sixth century', and in it a British people and a British king appear at Lincoln amid Teutonic surroundings. There is further sufficient evidence to indicate that the identity of the ancient kingdom survived the extinction of its dynasty, and that it was recognized as such by the Danish invaders of the ninth century. Moreover 'the fiscal evidence supplied by Domesday Book and later records suggests very strongly that Lindsey was regarded as distinct from Kesteven and Holland long before the Norman Conquest'.⁵⁵

In the Tribal Hidage, Lindsey is noted as containing 'with Haethfeld land' some seven thousand hides, that is, equal to the East Saxon and South Saxon kingdoms. It played a secluded part in the general history of the Heptarchy, but its position made it a regular prize of war between Northumbria and Mercia. The material available does not permit a complete account of the frontier oscillations, but the

⁵³ F. M. Stenton, in the volume of Essays presented to R. L. Poole, 1927.

⁵⁴ Skeat, *Lay of Havelok*, p. xxxiv.

⁵⁵ Stenton, *op. cit.*, p. 147 note.

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evidence relating to the seventh century is sufficient to enable a consistent picture to be built up.

At the beginning of the century, Lindsey was included within the limits of the northern kingdom,⁵⁶ but in 633,⁵⁷ the region was lost to the Mercians. It was recovered for a time⁵⁸ only to be lost again in 642;⁵⁹ recovered in 655⁶⁰ to be lost in 658.⁶¹ Then the Mercian king, Wulphere, founded 'a monastery at the place called Ad Barue in the province of Lindsey', which was under the control of the Mercian bishop at Lichfield. 'Sexwulf was bishop as well of that province as of the Mercians and Midland Angles'. It was recovered for a third time by the Northumbrians, and the Mercian bishop was replaced by another;⁶² prematurely, however, for the region was lost again in 679.⁶³ The century of warfare closed in peace; and it is likely that the island became a semi-independent appanage of Mercia.⁶⁴ The outstanding problem in this fluctuation is the manner in which the people of Lindsey accepted incorporation within a large unit. The phrase 'conquest of Lindsey' has been used too lightly and without appreciation of the existence of a local dynasty, for there are some indications symptomatic of local vitality.⁶⁵ Whatever the solution may be, it does not seem to disagree with the idea that Lindsey, like Ely surrounded by marsh, became a barrier state between two more powerful kingdoms.

Speaking of the frontier in early history, Lord Curzon⁶⁶ declared that 'sometimes it was a razed or depopulated or devastated tract of country; at others a debatable strip between the territories of rival powers; or, again, a border territory subject to and defended by one party though exposed to the ravages of the other'. The Fenland constituted such a frontier amid the political geography of the Saxon period.

⁵⁶ *Saxon Chronicle*, 617, 627. Bede, II, 16.

⁵⁷ *Saxon Chronicle*, 633. Bede, III, 1.

⁵⁸ Bede, III, 11.

⁵⁹ Bede, III, 9. *Saxon Chronicle*, 642.

⁶⁰ *Saxon Chronicle*, 655.

⁶¹ Bede, III, 24; IV, 3.

⁶² Bede, IV, 12. *Saxon Chronicle*, 678.

⁶³ Bede, IV, 21. *Saxon Chronicle*, 679.

⁶⁴ *Saxon Chronicle*, 702.

⁶⁵ Bede, III, 11.

⁶⁶ Romanes Lecture on 'Frontiers', 1907, p. 26.

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NOTE ON THE GYRWE

The Gyrwe¹ are one of the units enumerated in the Tribal Hidage. They were divided into North Gyrwe and South Gyrwe, each containing 600 hides. Bede² says that Peterborough was in their country, while in the Hyde Register³ it is stated that Crowland lay 'on middan Gyrwan Fenne'. The evidence available concerning the extent of this Gyrwan territory however is not conclusive and permits different views being held.

The links in the first identification⁴ are as follows :—

- (a) Bede⁵ says that Etheldreda daughter of the East Anglian king Anna married Tonbert a prince of the South Gyrwe.
- (b) Thomas of Ely⁶ declares that she received the island of Ely as a dowry from her husband.

There is a *prima facie* case to equate the dowry with the domain of the Gyrwe because,

- (1) Bede⁷ says Ely contained 600 families.
- (2) Thomas of Ely⁸ in another connexion declares,
Girvii sunt omnes australes Angli in magna
palude habitantes in qua est Insula de Ely.

But Bede himself does not suggest that Etheldreda acquired the island in this way.⁹ On the contrary he states 'Est autem Elge in provincia Orientalium Anglorum', and adds that she built her monastery there because she was descended from that same province of the East Angles. It must be remembered that Thomas of Ely was much later in time than Bede and like many another medieval chronicler not so reliable.

There is a second identification dependent upon a different type of evidence. Goodall¹⁰ points out that the S. Girvii 'could not have occupied the southern bank of the Nene near Peterborough for Sweordora (another Hidage unit) stood there. We must of necessity place them between the Nene and the Welland, and we must place the northern Girvii north of the Welland. Their area was not greater than one-sixth of the average county'. In a like manner Goodall identifies Spalding¹¹ as the area occupied by the Spalda and Wisbech as the region of the Wigesta.

¹ Ekwall on the Gyrwe in *Beiblatt zur Anglia*, 1922, p. 116.

² iv, 6. In a charter dated 957 (Birch, Cart. Sax. 1003) the phrase 'on gyruþan fen' occurs in an enumeration of the bounds of Conington.

³ Register of Hyde Abbey, (ed. by Birch), p. 88.

⁴ as held e.g. : by Corbett. *Eng. Hist. Rev.*, 1900.

⁵ iv, 19.

⁶ *Liber Eliensis*, p. 18. 'Insulam Elge ab eodem sponso ejus accepit in dotem'. Page 46, 'Ely, quam in possessionem propriam, quam a Tonberto primo sponso ejus, jure dotis'. For the Saxon custom of the husband giving a dowry, see Tacitus : *Germania*, 18. 'Dotem non uxor marito, sed uxoris maritus offert'.

⁷ iv, 19.

⁸ *Liber Eliensis*, p. 4.

⁹ See Chadwick, *op. cit.*, p. 7-8.

¹⁰ Goodall : 'The Tribal Hidage' in *Zeitschrift für Ortsnamenforschung*, Band 1, Heft. 3 (1925), p. 170. Cf. Mawer and Stenton : *Place Names of Bedfordshire and Huntingdonshire*, for Sword Point, 1926, p. 208.

¹¹ Goodall, 169-170.

FENLAND FRONTIER IN ANGLO-SAXON ENGLAND

There are other suggestions¹² but these two are the main points of view. To assess their relative merit, the testimony of Thomas of Ely's narrative must be balanced against the reliability of place-name identification. It is difficult to come to a conclusion; in fact it is not necessary to do so. There are many possible explanations. The term 'Gyrwe' which means 'fen dwellers' may at times have been applied to a particular tribe, at other times to all the marsh-dwellers in general. The fact that the Sweordora lived towards Peterborough is no reason why the Gyrwe should not have on occasions extended their influence over portions of the Fenland not originally their own. And it is possible that Etheldreda may have been presented with Ely by her own family just as in a later period the Mercian Queen Aethelswith possessed lands in Wessex. When everything is considered, it would indeed be peculiar if a complete solution were to be found, for in addition to the general difficulties of historical record are added the special difficulties of the region. The confusion in the evidence but confirms the supposition that in this frontier region, known to be generally unstable and wild, political limits changed many more times than the written record warrants.

¹² e.g. Brownbill: 'The Tribal Hidage', in *Eng. Hist. Rev.*, Oct. 1912.

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COLUDES BURH (PLATES I-II)

Coludes burh was the name of a cliff-castle or promontory fort on St. Abb's Head, Berwickshire, on the coast about midway between Berwick-on-Tweed and Dunbar. The position is a magnificent one, commanding a view from the coast of Fife and Forfar in the North to Lindisfarne in the South (from the hill above). The coast here is indented with many small inlets ; and it is across a neck between two such, at a distance of a quarter of a mile west by north of the lighthouse, that the line of the early rampart was drawn. This consisted of a thick wall built of rough stones *cemented together with hard mortar*—a feature unique in my experience. Three massive blocks of masonry still survive, one still in its original position above the foss (see PLATE I), the others, smaller, somewhat displaced. The mortar is made of lime and shingle, the latter doubtless obtained from one of the sea-beaches 250 feet below. With the exception of this neck every other side of the area cut off is precipitous and quite unscalable (see FRONTISPIECE, opp. p. 129). Within the area are remains of at least two buildings, one of them rectangular and about 9 by 25 paces ; and there seems to be the site of a third just outside the foss at its east end. The state of the ground outside in the immediate vicinity suggests that it was formerly cultivated in patches. The scenery is magnificent, and the sea-birds, sea pinks and close-bit turf add to the charm of the spot.

Of its history we know only that there was a double (*i.e.* co-ed.) monastery here found by Æbba, the half-sister of Oswiu, king of Northumbria (642-71) ; and that it was subsequently burnt down. The date of its destruction is given in one manuscript of the O.E. Chronicle as 679, but this is regarded by Plummer as too early.

The foundation of monasteries in abandoned forts has many parallels, at Ebchester (by the same Æbba), Burgh Castle, Suffolk (by Fursey) and at Reculver (by Bassa). In those days there was need of protection, nor was the distinction between civil and religious establishments as marked as it became later.

But the most interesting fact (after the mortared wall) is undoubtedly its mention, under the name *Caer Golud*, in a poem in the Book of Taliessin. This has hitherto escaped notice. I am assured

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by Professor Watson that the equation of *Caer Golud* and *Coludes burh* is philologically a perfectly sound one, the one name being in fact a literal translation of the other. (The initial 'C' is softened into 'G' after the feminine noun 'caer'). The statement in the poem is merely the formal refrain to the effect that 'except seven none returned from *Caer Golud*'. What this or indeed the rest of the poem means I do not know, nor whether this obscurity is due to the badness of the translation* or to the incoherence of the original poem, or to both. One fact emerges, however, and that is that *Caer Golud* was the scene of fighting and was associated with Arthur, who is mentioned in the preceding line. Was it Arthur who built the mortared wall, *more Romano*, or did he inherit it from some Roman predecessor, or was he perhaps outside attempting to storm it?

The same poem contains several other Middle Welsh place-names of early (presumably dark age) sites:—*Caer Sidi*, *Caer Pedryvan*, *Caer Vedwyd*, *Caer Rigor*, *Caer Wydyr*, *Devwy*, *Caer Vandwy*, *Caer Ochren*. Not one of these has been identified. It does not of course follow because one of them is found to be in North Britain that the others must also be looked for there. Nevertheless this association of Arthur with the north strengthens certain other evidence about Arthur which we hope to lay before the readers of *ANTIQUITY* at an early date.

O.G.S.C.

HISTORICAL REFERENCES

- Vita Wilfridi Episcopi*, auctore Eddio Stephano, cap. xxxix (Rolls Series, *Historians of the Church of York*, ed. Jas. Raine, 1879, i, 55): '... coenobium quod Colodaesburg dicitur . . . cui praesidebat sanctissima materfamilias nomine Æbbae, soror Oswini regis sapientissima'.
- Bede, *Hist. Eccles.* cap. xvii (Plummer, 1896, i, 243): '... monasterium Æbbae abbatissae, quae erat amita [aunt] regis Ecgfridi, positum in loco quem Coludi urbem nominant'.
- Ib. id. cap. xxiii (Plummer, 1896, i, 262): 'His temporibus monasterium virginum quod Coludi urbem cognominant, cuius et supra meminimus, per culpam incuriae flammis absumtum est'. (There follows the tale of Adamnan the Scot who was leading a life of prayer and continence there, consisting of eating and drinking only on Thursdays and Sundays and often praying all night. Bede then recounts the story of his sin and repentance, and of how he prophesied the destruction of *Coludes burh* as a divine judgment for its corruptions).
- Vita S. Cuthberti*, Auct. Anon: 'Veniens ergo [S. Cuthbertus], ut invitatus est ad coenobium quod dicitur Colodes byrig, manensque ibi aliquot dies . . .' [Ven. Bedae op. hist. min., ed. J. Stevenson, 1841, p. 266, corrected].

* It should be stated that the translations were not by Skene himself. The Book of *Taliessin* was done for him by the Rev. Robert Williams of Rhydydroesau (F.A.B. i, 17).

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Vita S. Cudbercti, auct. Ven. Beda: 'Erat sanctimonialis femina et mater ancillarum Christi, nomine Æbbe, regens monasterium, quod situm est in loco quem Coludi urbem nuncupant' [ib. id. pp. 68, 69].

Anglo-Saxon Chronicle, s. a. 679: 'Coludes burh for barn mid godcundum fyre (celico igni, F.)': Coludes burh was burnt with divine fire. (Copied from Bede).

Liber Eliensis, p. 38: 'Coldeburches hevet, quod latine caput Coldeburci dicitur'.

Capgrave I, 303-4: 'montem Coludi, id est Coldingham'.

Book of Taliessin, xxx: 'Namyn seith ny dyrreith o gaer golud' (except seven none returned from Caer Golud). W. F. Skene, *Four Ancient Books of Wales*, 1868, I, 265, II, 182.

AN OLD CORNISH PLOUGH (PLATE III)

We are indebted to the *Western Morning News* (Plymouth), for the illustration of a primitive type of plough in use on the farm occupied by Mr J. Serpell, of Cleeve Farm, St. Ives*, Cornwall, where the photograph was taken. The age of the implement is not known but it is believed to have last been used at the time, now many decades past, when oxen were used for ploughing.

Mr R. D. GREENAWAY writes:—

'It may be compared with the old Breton plough now in the Pitt-Rivers Museum (illustrated in *ANTIQUITY*, 1927, I, 270), to which it bears a close resemblance and is equally entitled to be considered as an adaptation of the "caschrom". The share is missing, and there appears to be no trace remaining of a coulter. Unfortunately I have not been able to examine the plough myself or to obtain any further information about it from its owner, so that it is perhaps premature to state that it never possessed a coulter, but it is difficult to see from the photograph how this could have been attached, if it did exist. If the absence of the coulter is an original feature the plough represents a survival of a type even more primitive than that represented by the Breton one.

It will be noted that with the exception of the iron plate at the junction of handle and share-beam (which I am inclined to believe does not form part of the original implement but represents a later repair) the whole implement is made of wood, and wooden pegs have been used to fasten its components together. The traction-beam has no attachment at its distal end for yoking up (the extreme distal end is "off the picture" but in another photograph from the same source it is shown)'.

* St. Ives, 4 miles NE of Liskeard in east Cornwall (36 NE) and must not be confused with St. Ives in Penwith in west Cornwall.

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TWO FRAGMENTS (PLATES IV-V)

Cairo of the Caliphs rose from the ruins of other cities ; its stones are full of ancient inscriptions, too numerous to be heeded by the antiquary, unless they contain a royal name. Inside the north wall of the medieval city, between the Gate of Conquests (Bab-el-Futuh) and the Gate of Victory (Bab-el-Nasr) there is a hitherto unrecorded cartouche of Rameses II (1292-25) in limestone, about 2 ft. by 1 ft. (PLATE IV). It is on the wall of an unlit tunnel that runs along the rampart over a solid foundation and that was designed to protect the garrison from arrows and missiles ; overhead are the battlements, crenelated not only on the outer side but also toward the city, to overawe a turbulent populace. It would be difficult to fix the date of the tunnel. The solid base is formed by the north wall of the Hakim Mosque erected outside the old town shortly before the year 1000. When the fortified area of Cairo was enlarged in 1087 by the Vizier Badr-el-Gimâli, the wall was incorporated in the defences between the two new gates. Improvements were made by Saladin a hundred years later ; after an earthquake in 1303 it was again repaired, and finally Napoleon rescued it from a state of ruin in 1799 and added turrets. Presumably the tunnel was made by El Gimâli or perhaps by Saladin. As to the origin of the fragment, there can be no doubt that it came from the ruined town and temple of Heliopolis, five miles away on the edge of the desert. This was so extensively utilized as a quarry by the Cairenes that nothing remains of it today but the obelisk and a few bulky blocks of granite, too hard to cut up and too large for the mason to transport. Several of these bear the name of Rameses II and he is known to have added to the temple. The photo was of course taken with the flash on the left, showing the symbols incised in the stone. If the plate is placed in a light from the right, by an optical illusion they appear in relief.

Since the appearance of the note on Babylon of Egypt (ANTIQUITY, 1930, IV, 483-6), further excavation of the rubbish inside Trajan's Water-Gate at Old Cairo has brought to light a fine black granite sarcophagus, broken at the foot and without cover (PLATE V), now removed to the Museum of Egyptian Antiquities. It is that of a high court-official and priest. The sarcophagus must have been brought by water from a tomb in Upper Egypt to the place in which it was found at some time during the Christian or the Moslem era. It is difficult to understand why, in those days before collectors, so much trouble should have been taken ; perhaps it was intended for a public water-trough,

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broken in unloading from a boat at the gate and thrown aside. There is another well-authenticated case of such a sarcophagus, that of a lady of the xxvith Dynasty, which was used as a drinking-trough in the Qalaat-el-Kabsh or Castle of the Ram in medieval Cairo. It was named 'Hod-el-Marâsîm', Basin of Signs, owing to the hieroglyphics on it, and imbued with magic qualities. In the 17th century its water was believed to restore health to the sick by virtue of its graphic spells and in the 18th century it was reputed to turn everything immersed in it into gold. This latter sarcophagus is in the British Museum.

E. H. SAWYER.

NEOLITHIC HOUSES, DENMARK (PLATES VI-VIII)

It was the good fortune of the writer to visit during the 1933 season the excavations at Troldebjerg, near Rudkøbing, Langelands Island, Denmark, being carried out by Herr J. Winther. In *ANTIQUITY*, September 1933, p. 379, Herr Winther's account of the late passage-grave time settlement site of Lindø, to which he devoted many years of excavation, was reviewed. So far Herr Winther has carried out two seasons' work at Troldebjerg and has not yet by any means completed the excavation, but through his courtesy in supplying photographs and allowing their reproduction we are able to give readers of *ANTIQUITY* the advance information which the importance of the excavations demands. The Troldebjerg site dates from the first half of the passage-grave period. Now it is a commonplace that the vast bulk of the archaeological material from this period represents the grave furniture of the time. At Troldebjerg, however, on the lower slopes of a moraine and bordering a peat-bog¹ we have the remains of an extensive village of farmsteads, rich in archaeological material of this period. It has been possible to recover the house-plans owing to the use of stones for packing post-holes and supporting walls. The houses (PLATE VI) so far excavated are of rectangular form. They appear to have had one main wall only, the other side probably sloping down pent-wise from the apex of the roof, which was supported by a central row of posts as illustrated in the model reconstructed on the site by Herr Winther. (PLATE VII). The main side-walls survive as grooves flanked on either side by stones, while the central rows of roof-supports are indicated by

¹ Sections have been cut into the bog in order to relate the occupational scatter from the site to the peat, and so obtain a correlation with the local forest history. Cf. *Antiquaries Journal*, 1933, 266.

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series of beautiful stone-packed post-holes one of which is illustrated (PLATE VIII).

A certain amount of burnt clay, showing wattle impressions, was found along the line of the main walls. Herr Winther is of the opinion that the houses occur in pairs, each pair consisting of a dwelling-house and a cattle-byre. This is supported by the fact that whereas the former yield archaeological remains in great abundance, the latter are almost sterile. The culture layer is extremely rich and has yielded first and foremost great quantities of megalithic pottery and clay ladles. The stone types include the perforated double-bladed stone axe, transverse flint arrow-heads, numerous thin-butted and a very few thick-butted flint axes, numerous scrapers, and an interesting flake-implement, showing about one centimetre of primary flake edge isolated on either flank by secondary flaking from the bulbar flake surface.² This flint type occurs in some hundreds at Troldebjerg and may prove to be a valuable dating fossil. In conclusion one may express the hope that Herr Winther will give us his results in another volume as well illustrated as his last.

J. G. D. CLARK.

HISTORY FILMS

In order to enable the student to watch various happenings unfolding themselves simultaneously and continuously in various places it is proposed to make use of the cinematograph ; this being the only means by which a continuity of happenings can be portrayed.

Such a film must, of course, be in diagrammatic form. Its permanent element would be a map ; and the passage of time would be indicated by a speedometer in one corner which would tick off the passing decades or centuries. Events would be shown diagrammatically by variations of colour and shading which the lecturer would explain beforehand ; occasionally also by one or two printed words appearing for a few moments on some part of the map ; while here and there some pictorial or lighting effect might be contrived to make an important event more easily memorable.

Printing would probably be most strikingly visible if the letters were of bright white on a rectangle of black, and the picture on the screen ought probably to be quite 12 feet wide for details to be intelligible and words legible without making them cover unduly large pieces of the map.

'Captions' shown above or below the film (or both) would deal

² See *Antiquaries Journal*, 1934, XIV, p. 53.

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with subjects which it would be difficult to indicate diagrammatically. But these would be more for the benefit of the lecturer, helping him to keep his comments in time with the film, than for the students who would be fully occupied watching the map and listening.

The lecturer would, of course, be able to stop the film for as long and as often as he wished, and he could repeat any part of it at will. When dealing with any given situation he would be able to show it not only in relation to other contemporary situations, but also in the actual process of being developed or of being resolved. The film would in fact be a moving or movable map. It would supplement the ordinary static maps and constitute part of the usual furniture of the history lecture-room.

Of course, it would only be by seeing the film repeatedly—watching now one part of it, now another—that a student would become sufficiently familiar with it to visualize it and to remember it as a whole. But in proportion as this was accomplished it would be possible to grasp the connexions and interactions of different streams of events and to trace cause and effect over long periods of time.

All sorts of subjects could be dealt with in this manner—vast generalizations like the history of life on this planet, or long periods of human history ; such things as the spread of religions or the progress of exploration ; or even campaigns and battles.

The following is a rough indication of the sort of thing that might be done :—

Let us imagine a film intended to give a general idea of the happenings in Europe from the coming of *Homo Sapiens* till the dawn of agriculture (following Peake and Fleure).

The map would show Europe, North Africa and the Near East ; and the speedometer would indicate the passage of centuries in pretty quick succession. We should watch the coast line changing all the time. The blue ice caps would diminish and the khaki coloured tundra become gradually a little greener. On this background movements of population would be shown by the progression of little black dots, and the name of the culture with which the people in question are identified would be displayed for a few moments on that part of the map where the movement is taking place. (On this same label might be displayed a picture of a typical implement or painting, for as these black rectangular labels would only appear for a few moments, they might well be of considerable size—quite 18 inches square—thus ensuring that their contents would be quickly grasped).

PLATE I



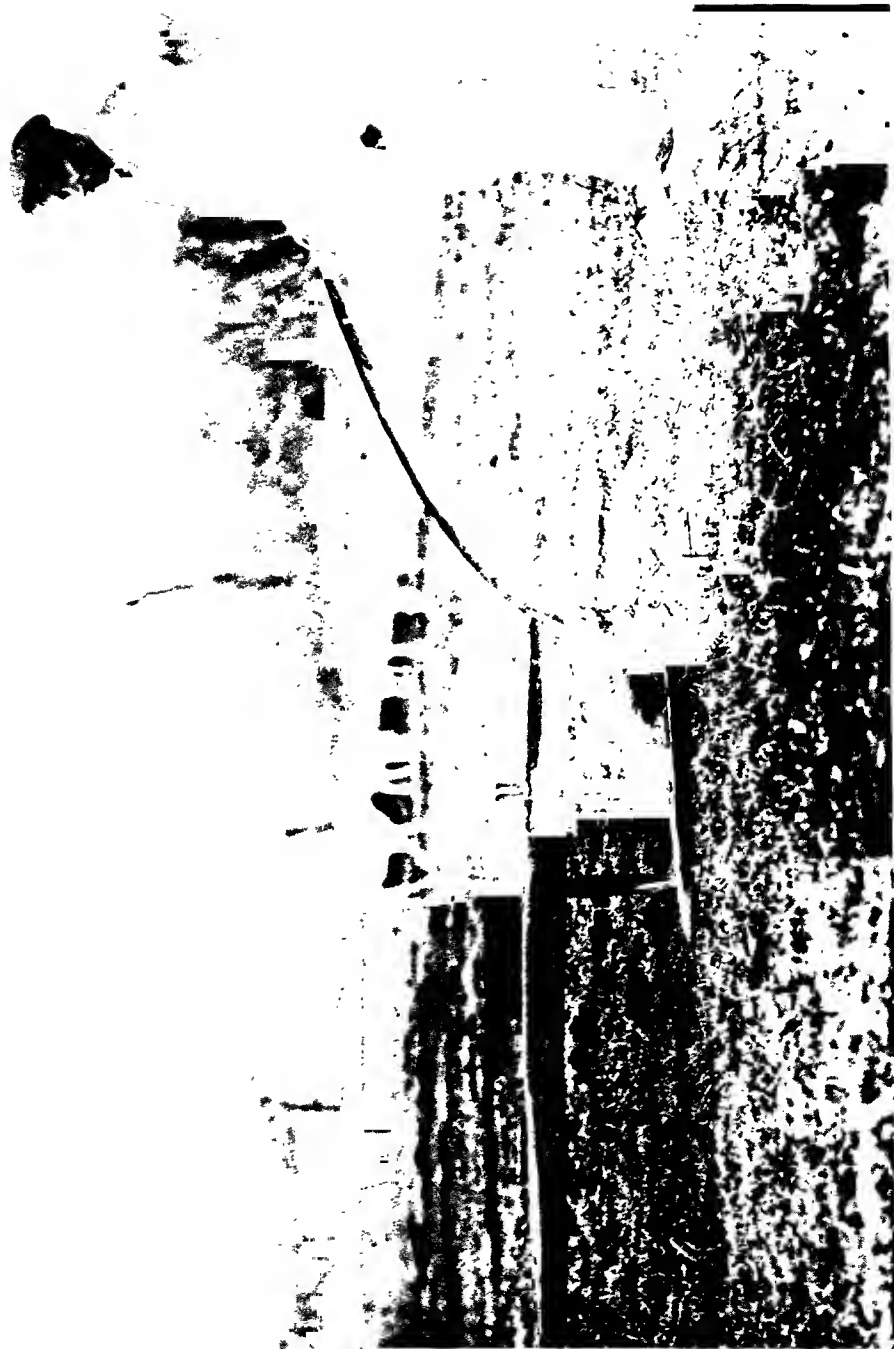
REMAINS OF MORTARED MASONRY ON RAMPART OF COLÚDES BURIL, LOOKING WEST. (See p. 202)
Ph O G. S. Crawford

PLATE II



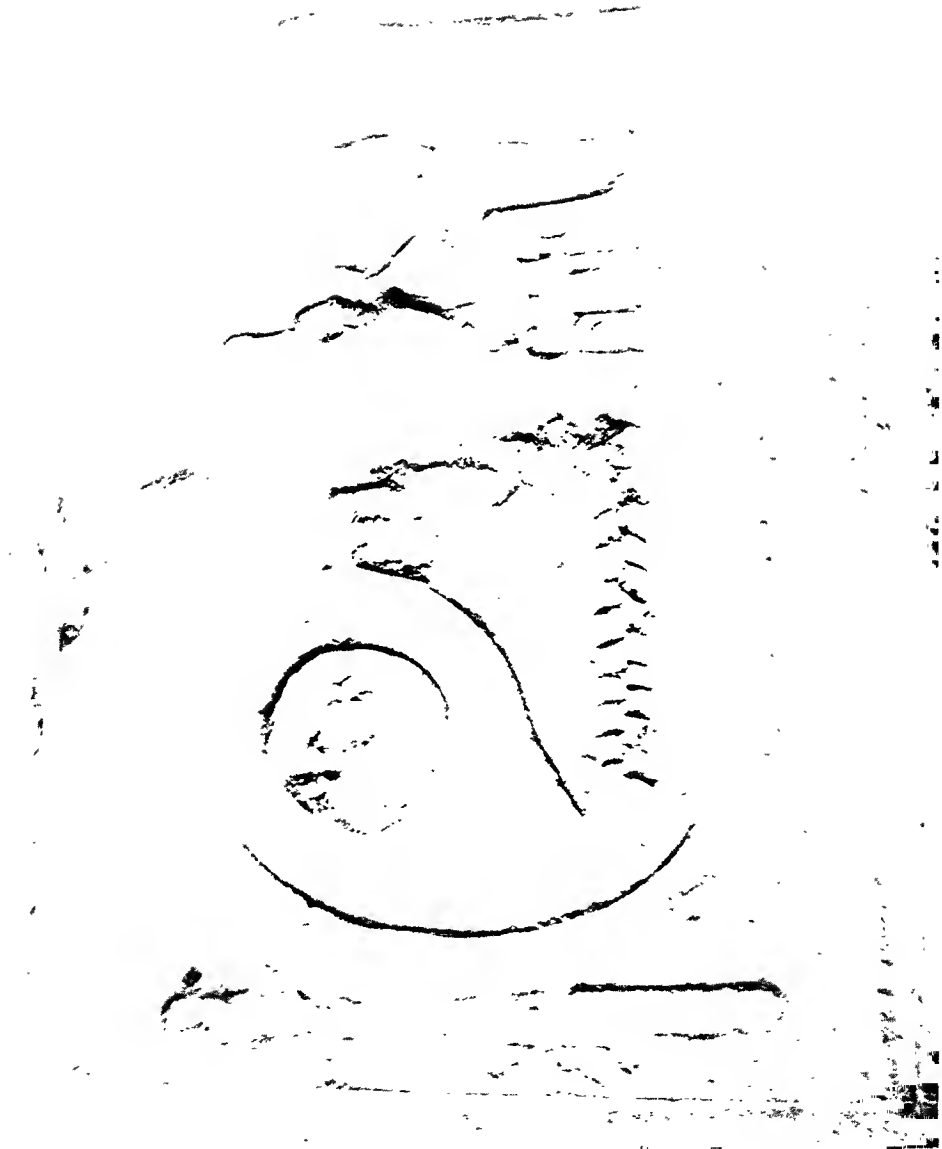
WALL AND FOSS OF COLVIES BURH, LOOKING EAST. (See p. 202)
Ph O. G. S. Crawford

PLATE III



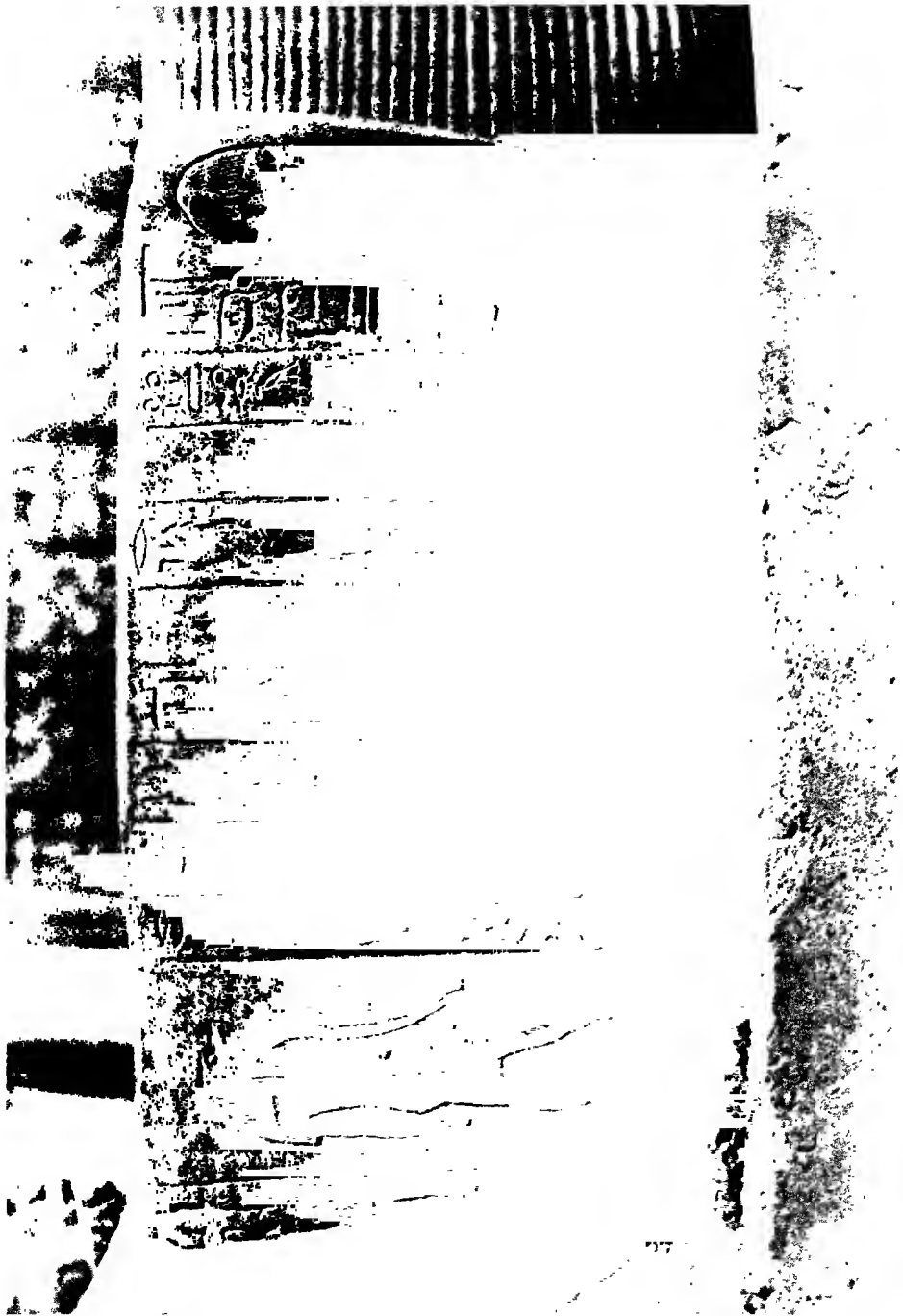
A CORNISH PLOVER G.H. (No. p. 204)
By courtesy of the Western Mounting News, Plymouth

PLATE IV



CARTOUCHE OF RAMESES II (See p. 205)
Ph. E. H. Sawyer

PLATE V



BLACK GRANITE SARCOPHAGUS OF COURT OFFICIAL OR PRIEST. (No. P. 205)
Ph. E. H. Sawyer

PLATE VI



A GENERAL VIEW OF THE EXCAVATIONS AT FROLDEBJERG, IN THE SUMMER OF 1933
Note the glacial moraine on the right and the peat fen beyond the road on the left. Wall-grooves, post-holes and hearths are visible
in the foreground. (See p. 206)
/h. J. Winther

PLATE VII



RECONSTRUCTION OF A HOUSE OF THE EARLY PASSAGE-GRAVE PERIOD IN DENMARK (See p. 206)

Pl. J. Winther

PLATE VIII



SHOWING TYPICAL STONE-PACKED POST-HOLE AT TROLDEBJERG DATING FROM THE EARLY
PASSAGE-GRAVE PERIOD OF DENMARK. (See p. 206)

Ph. J. Wunther

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We should thus see *Homo Sapiens* crossing the land-bridges and moving up Spain and Italy. Neanderthalers, indicated perhaps by a few tiny crosses, would fade out. Animals typical of the period might be shown in black outline on the map, that of the reindeer being left after the others had faded out in order to mark its predominance. We should watch the spread of the Alpine race and the arrival of the Solutreans. Aurignacians would trickle southwards over the Pyrenees and return later with Magdalenian culture. Meanwhile we should see the pine forests (indicated by little patches of darker green) spreading northwestwards over Europe. The mammoth would appear in outline and perhaps other Arctic fauna typical of Magdalenian times. These would fade out as the oak—in paler green—supplanted the pine, and the outlined reindeer would trot northwards up the map, the red-deer becoming gradually visible in his place. While this goes on successive phases of Capsian and Magdalenian culture would be indicated. Meanwhile, too, the Sahara will have been getting yellower as desert conditions intensified and we should be noticing the consequent dispersal and mingling of populations and fresh cultures and racial types being evolved. Towards the end of this film as the oak forests are seen growing denser, the light might grow dim over Europe to indicate the restricted life of the food collectors, and become brighter here and there in the East to show the dawn of agriculture and settled civilization.

All this time the lecturer will, of course, have been explaining and amplifying what has been shown on the screen—either dealing with everything, or, more probably, with one aspect of what has been shown (coast line, climate, fauna or flora, cultures or racial types, etc.).

A film dealing with the next few millennia would perhaps be a more typical example to take. In this case the speedometer would move more slowly and it would be unnecessary to consider flora and fauna (except perhaps to note the domestication of animals). Uncivilized populations would still be shown as a speckle of black dots, but colours would be used to indicate and distinguish between different civilizations. Highly civilized communities might be shown in light colours—pink, blue and yellow—varying in intensity and area as these civilizations waxed and waned. More lowly civilized communities might be indicated with dull coloured dots, and nomadic populations with dots of grey which would assume the colour of any civilized community they temporarily dispossessed. The student would, therefore, find himself looking at a Europe thinly speckled with black and

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even with an unfamiliar coast line in the neighbourhood of the North Sea long after colour had begun to appear in the East. He would watch not only the changing colour pattern there, but he would see veins of colour extending westwards as trade routes were developed and cultures diffused. On the other hand at the back of beyond he would notice black dots bumping into each other and starting displacements of population, the repercussions of which he would be able to follow through the centuries to their ultimate denouements.

By this sort of means any episodes which had hitherto been rather vaguely connected with things in general, would be clearly seen to take their places in the march of events. Series of happenings which even outlines of history are obliged to treat in separate chapters would now be seen going on concurrently, reacting on each other and foreshadowing future reactions.

Films dealing with recent periods for which the historical material is more abundant might be put through at a somewhat slower 'tempo', but they would have to be reduced to the same simplifications as the others. They would no doubt be more difficult to deal with but one can imagine a good film dealing with the impact of East and West—successive invasions of nomadic peoples, Mongols, Tartars, Turks, etc., which could be extended to the present day.

Such films ought to present a bird's eye view with greater clarity than can easily be obtained by reading chapter after chapter or book after book. For instead of following first one thread and then another, harking backwards and forwards in time and wandering from place to place, we should be watching the whole pattern of events (in simplified outline, of course), unfolding itself as it actually did through the years. Events diagrammatically expressed would be *actually seen happening* in their true relation to each other both as regards place and time.

ALAN BEETON.

CURRENCY-BARS

Most readers of the entertaining controversy about 'currency-bars' in ANTIQUITY (March and June, 1933) will probably agree with Mr Reginald Smith, and accept the reading *taleis* in Caesar, B.G. v. 12. I gather that Mr Hulme proposes to read here 'utuntur aut aere aut nummo aureo aut anulis aut aliis ferreis' (March, p. 68, line 18). Is not this taking too great a liberty with the text, corrupt though it is? There is less MS evidence for *anulis* than for *taleis*, and no authority for including both *anulis* and *aliis*. Mr Hulme's objection that *talea*

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means a wooden bar is, I think, sufficiently removed by Mr Reginald Smith's remark on the qualifying adjective *ferreis*; and add that Vitruvius uses *talea* of beams which are very unlike the ordinary meaning of the word (*e.g.* reinforcing beams in walls, I. 5; bridge foundation-piles, v). It is curious that neither of the disputants refers to the currency-bars from Wayland's Smithy, Berks, which Mr Hulme figures on p. 61, and which Mr Reginald Smith, himself if I remember aright, discovered in 1919 (*Berks. Arch. Journ.*, xxxii, 79, xxxiii, 22b., reprinted from *Antiquaries Journ.* 1921, I, 183-98). These have no resemblance to swords in any stage of manufacture; and a 'currency tradition' is attached to the site. Everyone knows the legend of the invisible smith, which, together with the objects themselves, affords evidence definitely in favour of the 'currency-bars' theory.

G. W. B. HUNTINGFORD.

TERRACES IN KENYA

Since my paper in *ANTIQUITY*, June 1933, was written, some terraces have been found at Tambach, about 20 miles east of Eldoret (lat. $0^{\circ} 36' N$, long. $35^{\circ} 32' E$), for a short account of which I am indebted to the kindness of Mr S. F. Deck, Provincial Commissioner, Nzoia. Two sets of terraces have been found, separated by a strip of level ground :—

1. The upper terraces, which lie at the foot of a precipice 800 feet high, have a natural slope of about 40° . The terracing averages 4 feet wide, with steps about 1 ft. 6 ins. high.
2. The lower set is less steep, the slope having an angle of about 25° . The terraces are 10 feet to 30 feet wide.

In both sets there are stone enclosures: a group in the lower set consists of 4 enclosures joined together; diameters, 13, 17, 19, and 31 feet. The largest is joined to the others by a walled passage.

G. W. B. HUNTINGFORD.

DOMESDAY WOODLAND IN EAST ANGLIA

The outcome of the Gloucester Gemot at the end of 1085 was the sending out of officials to collect from each shire, hundred, and vill, the information now preserved in the two manuscript volumes which, within a century of their compilation, had become known as the Domesday Book. The larger of the two volumes deals with the greater part of England, the smaller deals only with the counties of Norfolk, Suffolk,

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and Essex. Although so important in matters legal and economic, its contribution to a reconstruction of the contemporary geography has not yet been fully extracted. And in this connexion East Anglia is particularly fortunate because the details contained in the 'Little Domesday' are much fuller than those given in the larger volume.

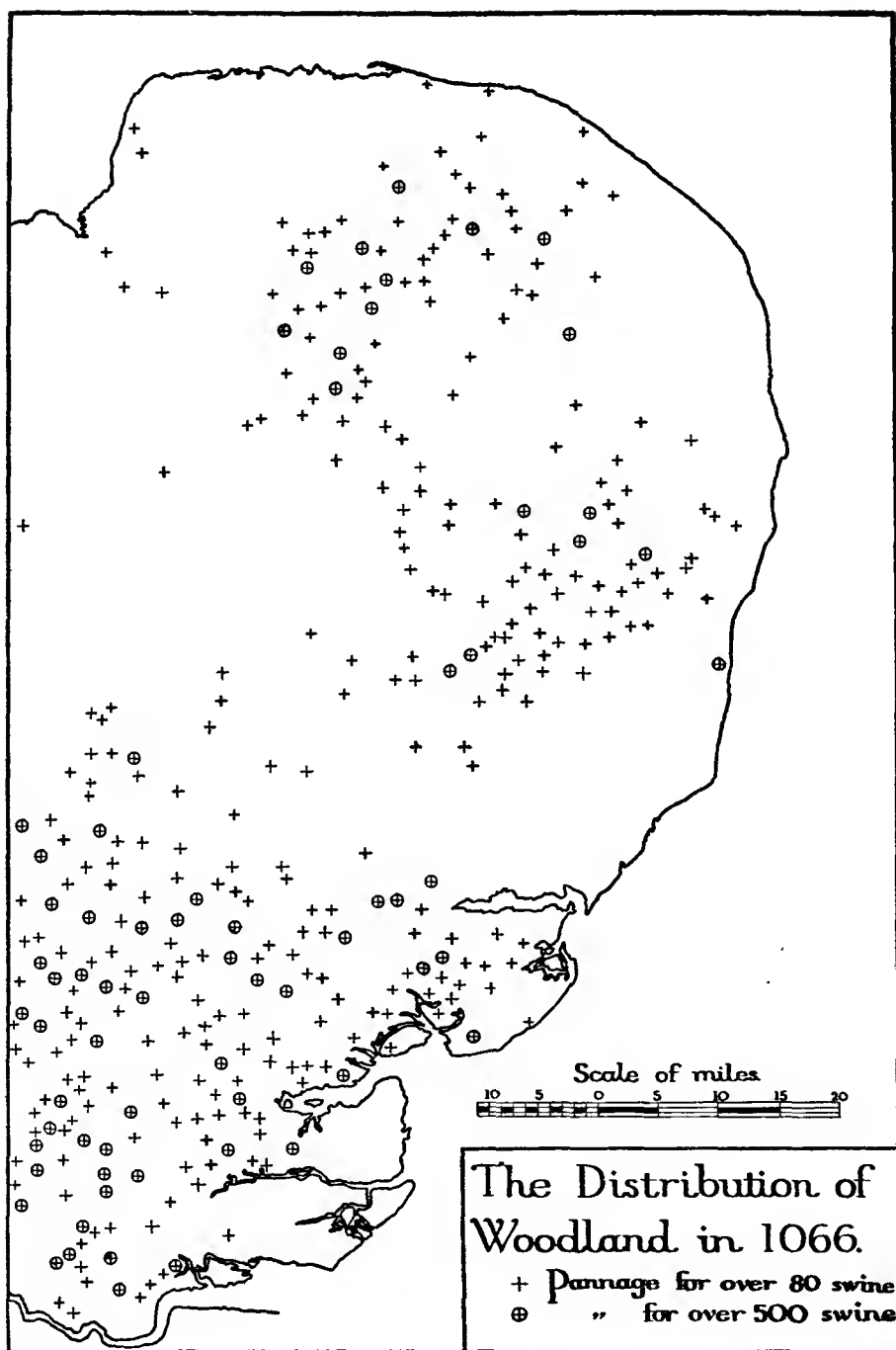
Three general points have to be noted about these details :

(1) The plan adopted by those who compiled the present books from the original returns is only in part geographical ; while each county is dealt with separately, within each county the information is arranged not on the basis of hundreds and vills, but under the headings of the tenants in chief. For the most part the possessions of these tenants were scattered about in various hundreds, and therefore the information relating to each vill has to be assembled from several different pages.

(2) 'One great purpose', wrote Maitland, 'seems to mould both its form and its substance ; it is a geld book', primarily intended for assessment purposes. Naturally this has some bearing upon its contents. Topographical information is thus nothing more than a by-product, and in many ways it is very meagre and full of surprising lapses. Indeed, when an item is recorded for any vill, we cannot always assume that it was geographically within the boundaries of that vill ; all we can say is that the vill was responsible for this particular set of profits. In the case of sheep and swine there was a good deal of intercommoning ; but, for instance, where there was a group of adjacent villages all responsible for wood-profits, we may safely conclude that it was a wooded district.

(3) Most of the entries state what the land was worth at the death of Edward the Confessor in 1066, what it was worth when its present owner received it, and its value when the returns were compiled. For each was given the number of villeins, cottars and other workers, the number of ploughlands and oxen, the assessment to the geld, and particulars about churches, mills and fisheries, together with other miscellaneous information. Among the latter come the details about wood.

This information about woodland was given in a variety of ways. Very frequent was the formula 'there is a wood x leagues by y leagues' ; sometimes the extent was given in the form of acres, or hides, or hedges—all ways which make cartographic representation difficult. But in many counties the usual formula was 'there is pannage for x swine', for pigs constituted an important element in medieval economy and they fed



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in the woodland. This latter was the normal wood-entry in the 'Little Domesday'; any other reference was so very rare as to be unimportant. The only considerable exception was the Norfolk hundred of Clacklose whose wood-entries were given in terms of acres. Stonham Aspell in Suffolk too had $1\frac{1}{2}$ acres of woodland and 28 acres 'part woodland'. How accurate were these figures? In the case of the larger entries, a thousand or several hundred swine, the round numbers would seem to be estimates rather than actual numbers; but on the other hand there are many instances of more detailed figures terminating in odd or even numbers; and occasionally the record can be particularly precise, as in the case of 'Strinchorn' (Itteringham), in Norfolk, where there were two sokemen who had 'wood for 18 pigs and two thirds of another . . .'. On the accompanying map the numbers 80 swine and 500 swine have been chosen as index figures to show moderate and large amounts of wood respectively. This woodland is seen to be concentrated in three well defined areas, one in Norfolk, one in Suffolk, and the other to the south, where the dense woodland of Essex was situated. These were, generally speaking, the areas where there were fewest sheep. The map was compiled in the Department of Geography at Cambridge.

The distribution of clay is frequently taken as a key to the distribution of woodland; but in East Anglia, while the two distributions overlap to a considerable extent, they do not overlap sufficiently to justify such a generalization. Some areas of boulder-clay have little or no wood; this may have been the result of clearing. But there are large stretches of woodland in non-clay areas, and it is evident that a certain caution is necessary in making deductions. Apropos of the distribution of Anglo-Saxon cemeteries, for instance, it has been said that the forest of Norfolk was less dense than that of Suffolk. The map gives no indication of this. In the south, however, the great woodland of Essex corresponded closely to the exposure of the heavy London Clay. It has to be remembered that the state of affairs shown by the map only represents a phase in the story of East Anglian deforestation. Clearings in pre-historic as in later times were no doubt frequent. In the latter half of the eleventh century, however, the jar of conquest made such changes rapid. Here are some examples of the clearing that took place in the years immediately preceding the Inquest:

		1066	1086
NORFOLK:	Cawston	1500 swine	1000 swine
	Baxton	1000 "	200 "
	Woodrising	200 "	166 "

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SUFFOLK :	Homersfield	600 swine	200 swine
	Leiston	500 „	200 „
	Coddenham	180 „	113 „
ESSEX :	Coggeshall	600 „	500 „
	Clavering	800 „	600 „
	Great Dunmow	400 „	350 „

The numerous medieval assarts continue the story, and the fragments of woodland marked on the earliest English county maps, some time after the close of the Middle Ages, register a further stage in the process.

H. C. DARBY.

A FLINT-MINER'S DWELLING AND A BRONZE AGE FARM IN SUSSEX (PLATES IX-XI)

Excavations carried out during the summer of 1933 by the Worthing Archaeological Society on New Barn Down, a spur of Harrow Hill, near Worthing, have yielded some striking new evidence bearing on the subjects of two recent papers in *ANTIQUITY*.*

(1) A neolithic dwelling-pit with a small annexe was the first surprise, for it was stumbled on quite unexpectedly. A fair quantity of Windmill Hill pottery, including the greater part of a hemispherical bowl, since restored, indicates the culture of its occupants, and most probably also that of the neighbouring flint-mines on Harrow Hill, a little more than half a mile away. Among the few rough flint tools found in the pit were two celts, one polished and one unground, but both damaged by fire. Both have clearly been made from mined flint, and the unground specimen has been executed in the characteristic technique of the flint-mines. There is therefore a very strong inference that the neighbouring Harrow Hill mines are to be ascribed to the Windmill Hill phase of the neolithic, and not (as has been claimed for the Blackpatch mines, a mile away) to the Beaker period. It is pleasant to conceive of this pit as representing the semi-basement abode of a capitalist of the mining industry of his time, living at a respectable distance from the works.

(2) The main objective of the excavation was to investigate a group of earthworks which have turned out to be nothing less than a farm of the late Bronze Age Deverel-Rimbury culture, complete with

* Grahame Clark and Stuart Piggott, 'The Age of the British Flint-Mines', *ANTIQUITY*, 1933, VII, 166; E. Cecil Curwen, 'Ancient Cultivations', *ANTIQUITY*, 1932, VI, 389.

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farm-yard, round huts, another oval enclosure (probably a fold), 2000 feet of contemporary road, and several acres of lynchets conforming to the same system—the whole being unobscured by any later occupation. In every particular—in its situation and in the size and shape of the fields—the farm is a characteristic example of the so-called Celtic field-system, which flourished throughout the Iron Age and Roman periods. We are thus able to recognize for the first time with certainty (what had been little more than hinted at before) that the beginnings of the Celtic field-system in Britain go back as far as the late Bronze Age, thus linking that period culturally with the Early Iron Age, rather than with the middle Bronze Age. The full report on this work is to appear in the *Sussex Archaeological Collections*, LXXV, this summer.

Another agricultural settlement, suspected to be of the Bronze Age, is to be examined by the Brighton and Hove Archaeological Club on Plumpton Plain, near Brighton, during August. E. CECIL CURWEN.

THE MILE DITCHES AT ROYSTON (PLATES XII–XIII)

These ditches are not marked on the Ordnance Maps, and are perhaps the least known of all the East Anglian ‘dykes’. They were first noticed by Beldam in 1868 (*Arch. Journ.* xxv, 37); and there was little to add to his account when Dr Fox wrote his book in 1923 (*Archaeology of the Cambridge Region*, 127). They are situated 1½ miles west of Royston in Hertfordshire, and run from the chalk escarpment (called here Therfield Heath) to Wellhead Springs at Bassingbourn, 1½ miles to the north (Herts. 4 NE; Cambs. 58 SW). At the foot of the slope runs the modern highroad from Royston to Baldock, following the line of the old Icknield Way.

Last January I went to Royston to investigate the Mile Ditches. All that was then known was that they were ‘visible only for a few hundred yards on the heath, from the Icknield Way southward’ (Fox). North of the Icknield Way Beldam, writing nearly 70 years ago, said ‘they have wholly disappeared among the modern enclosures, but they are well remembered, and my neighbour, the late Dr Webb, Master of Clare Hall, accurately described their course to me . . .’ I had no difficulty in finding the ditches on the heath; they begin 70 yards to the east of the tumulus. The westernmost is banked on both sides, the middle one has a bank on the east, and the eastern is not well enough preserved to say on which side the bank was. But not only could I see

PLATE IX



HARROW HILL (CENTRE) AND NEW BARN DOWN (FOREGROUND) LOOKING NORTH. (See p. 214)

The dimples slightly southeast of the centre of the picture mark the site of the Bronze Age Farm, the lynchets of which can be seen to the right. The road leading to the farm lies to the right of the modern barn (on left of picture), and is parallel to the hedge. The flint mines can be seen as dimples on the summit of Harrow Hill.

Air-photo by J. G. Head

PLATE X



NEW BARN DOWN, SUSSEX : POST-HOLES OF A ROUND HUT OF LATE BRONZE AGE FARM, AND OF
SURROUNDING PALISADE. (See p. 215)
Ph. E. Cecil Curwen

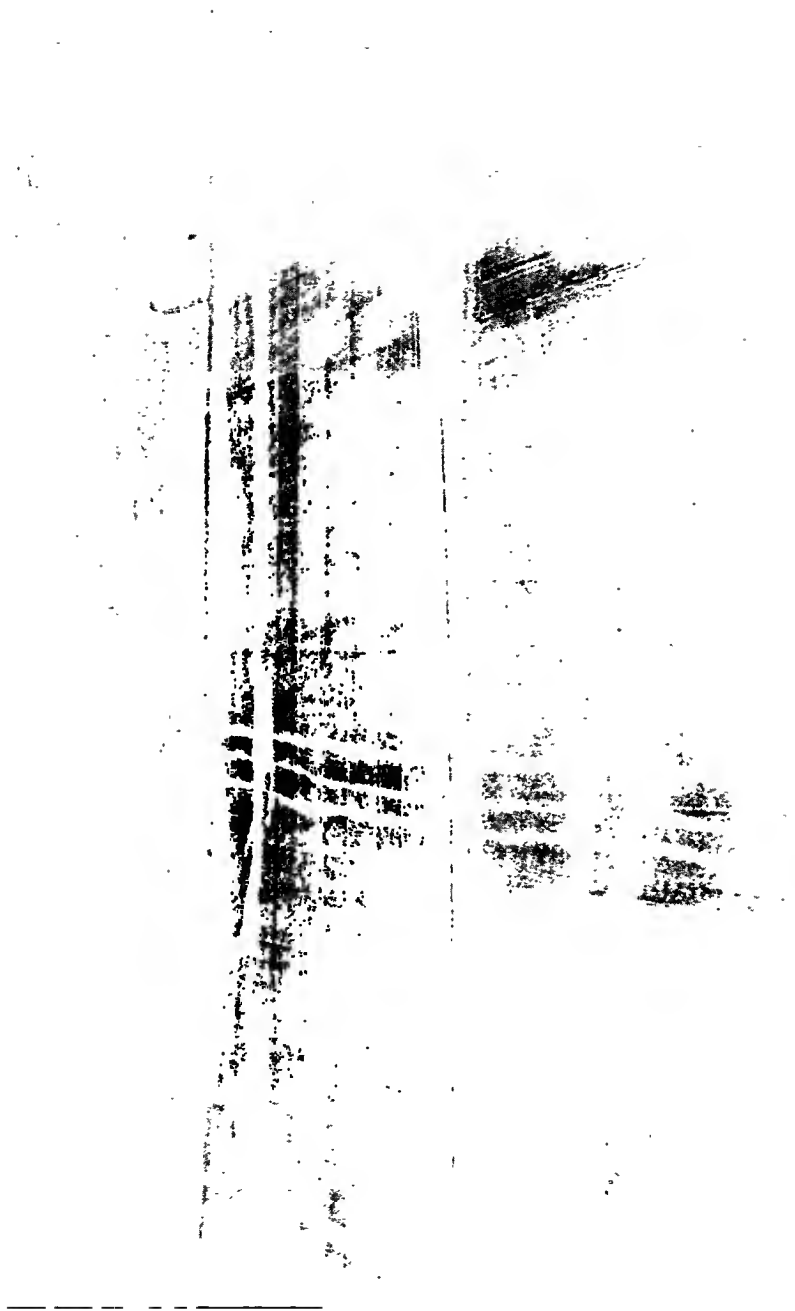
PLATE XI



NEW BARN DOWN, SUSSEX NEOLITHIC PIT-DWELLING. (See p. 215)

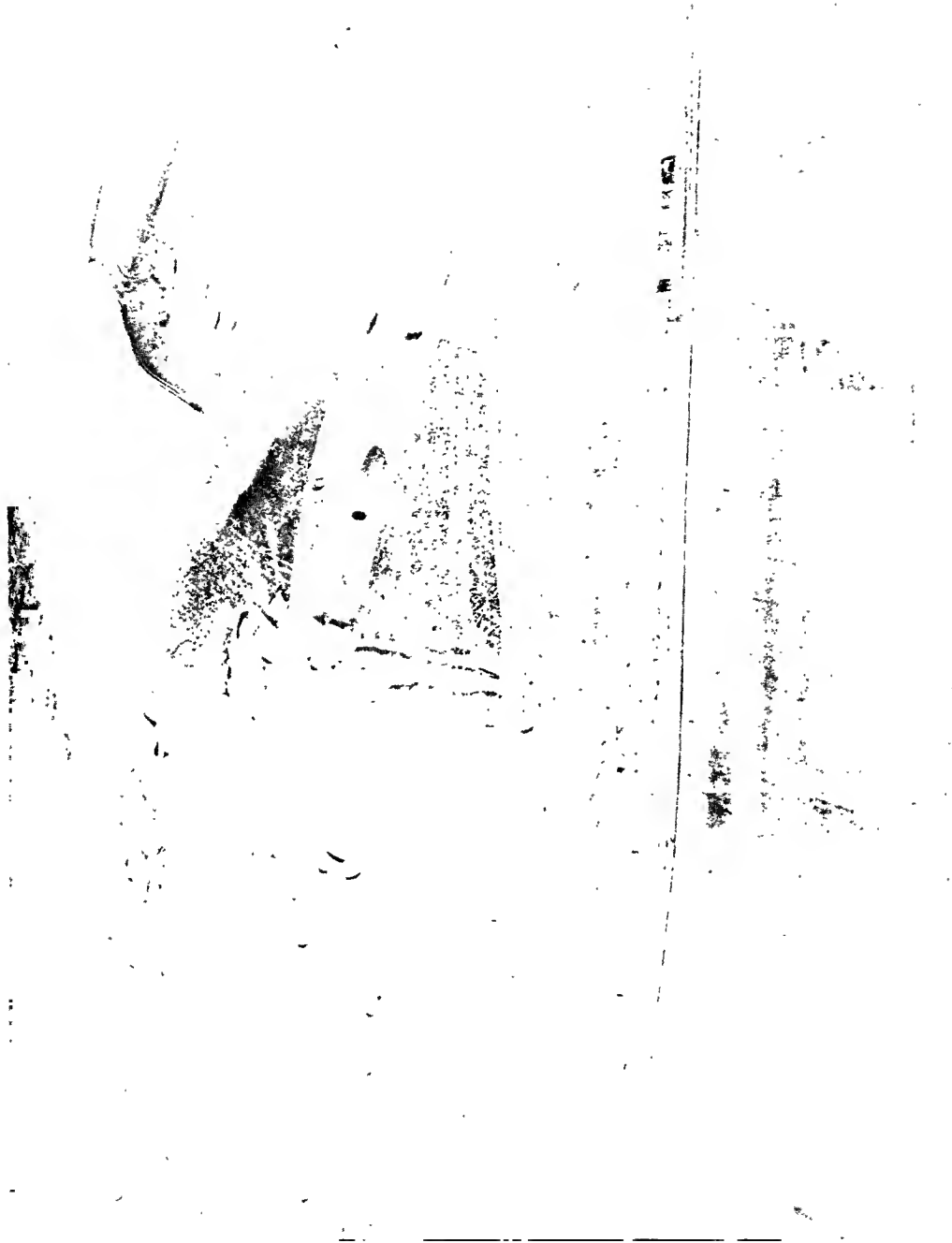
Ph. E. Cecil Curwen

PLATE XII



THE VILL. DITCHES. ROY'S FOX, II January 1934. (See p. 217)
Ph. Major G. W. G. Allen

PLATE XIII



THE MILE DITCHES, ROYSTON, 17 March 1934 (See p. 217)
Ph. Major G. W. G. Allen

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the ditches on the grass heath, but, from the hill I saw three parallel black bands continuing their line across the arable land fifty feet below me ! So plain were these bands of darker soil that I was actually able to measure their width by pacing (overall width, 21 paces ; western band $3\frac{1}{2}$ paces, middle and eastern band, $2\frac{1}{2}$ paces each). I could follow them for some distance until they finally faded out in the stubble.*

Here was an obvious case for air-photography, and I wrote that evening to Major G. W. G. Allen, asking him to have a shot at them. This he did on 11 January, and the result appears on PLATE XII. The three parallel bands are seen with startling clearness crossing first the railway and then the modern road (Icknield Way). Their course is broken by a broad dark band 16 paces wide, running parallel to the road, and nearer to it than to the railway. (This probably represents a silted-up hollow track of the Icknield Way, formed by the traffic crossing a low knoll.) The three marks can be followed with the eye until they meet three faint marks on the slope. It was in order to obtain a better photograph of these latter perfect portions that Major Allen flew there again on 17 March, when he took the photograph reproduced on PLATE XIII. His second photograph succeeded in achieving this, but lo, the three parallel bands have completely vanished ! Presumably they were obliterated by a slight fall of rain which darkened the soil and thereby destroyed the contrast. It is practically certain that the field between road and railway had not been reploughed in the interval between the taking of the two photographs ; when I passed it in the train on 21 April I observed young corn just beginning to sprout.

The two photographs are an excellent proof of the necessity of seizing the right time to photograph a site. They show, too, what mere soil, unaided by crops, is capable of revealing. It should also be pointed out that, although the best view naturally is that taken from an aeroplane, the air-photo shows nothing that was not visible to a ground observer. The black bands in the field were indeed so sharply defined that I was able to measure their width (given above). There is no magic in the air-view or camera ; it is merely the angle of sight thereby obtained that enables discoveries to be made, as I have often pointed out.

Beldam had excavations conducted to determine the relative age of the Icknield Way and the Mile Ditches, as a result of which it was

* Air-photographs show them continuing a mile beyond the railway, to a point east of Limlow Hill (o.s. air-photo. no. 374).

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'ascertained that the ditches terminate on either side of the road, leaving a space of solid chalk of about 16 or 18 feet in width, over which the ancient road undoubtedly passed, and proving therefore the priority of the road to the ditches'. Now this statement is unsatisfactory in many ways. It compels one to accept the authority of an observer of the pre-scientific period, unsupported by any sectional drawing, plan, or even detailed description. It was made at a date when antiquaries more often saw what they wished to see. It assumes that the ancient Icknield Way was confined to the narrow width of the modern road; this is most improbable and is contradicted by the evidence of these photographs, showing parallel tracks beyond the roadway and silted-up hollow tracks on the other (near) side of it. In open country, as here, the prehistoric downland tracks were unconfined, and remained so down to modern times.

It will be noticed however that the ditches spread out when they reach the brow of the escarpment. Now it seems possible that the easternmost may have continued along the escarpment; for amongst the tumuli further east are two detached portions of ditch, with bank on north or lower side, and an overall width of 7 paces. These fragments are of the same type as the Grim's ditch on the escarpment of the Berkshire Downs. This, and others like it elsewhere, should be prehistoric or Romano-British, if superficial appearance and measurements may be trusted. Further, the westernmost Mile Ditch is a bivallate, and such are generally regarded as not later than the Romano-British period.

The many other interesting features of the Royston country must be reserved for description on another occasion. O.G.S.C.

DYKE NEAR BEXLEY, KENT

The boundaries of a grant of land at Bexley,¹ dated A.D. 814, contain a reference to a 'faestendic'. This can be identified as an earthwork half a mile east of the river Cray, in Joydens Wood.²

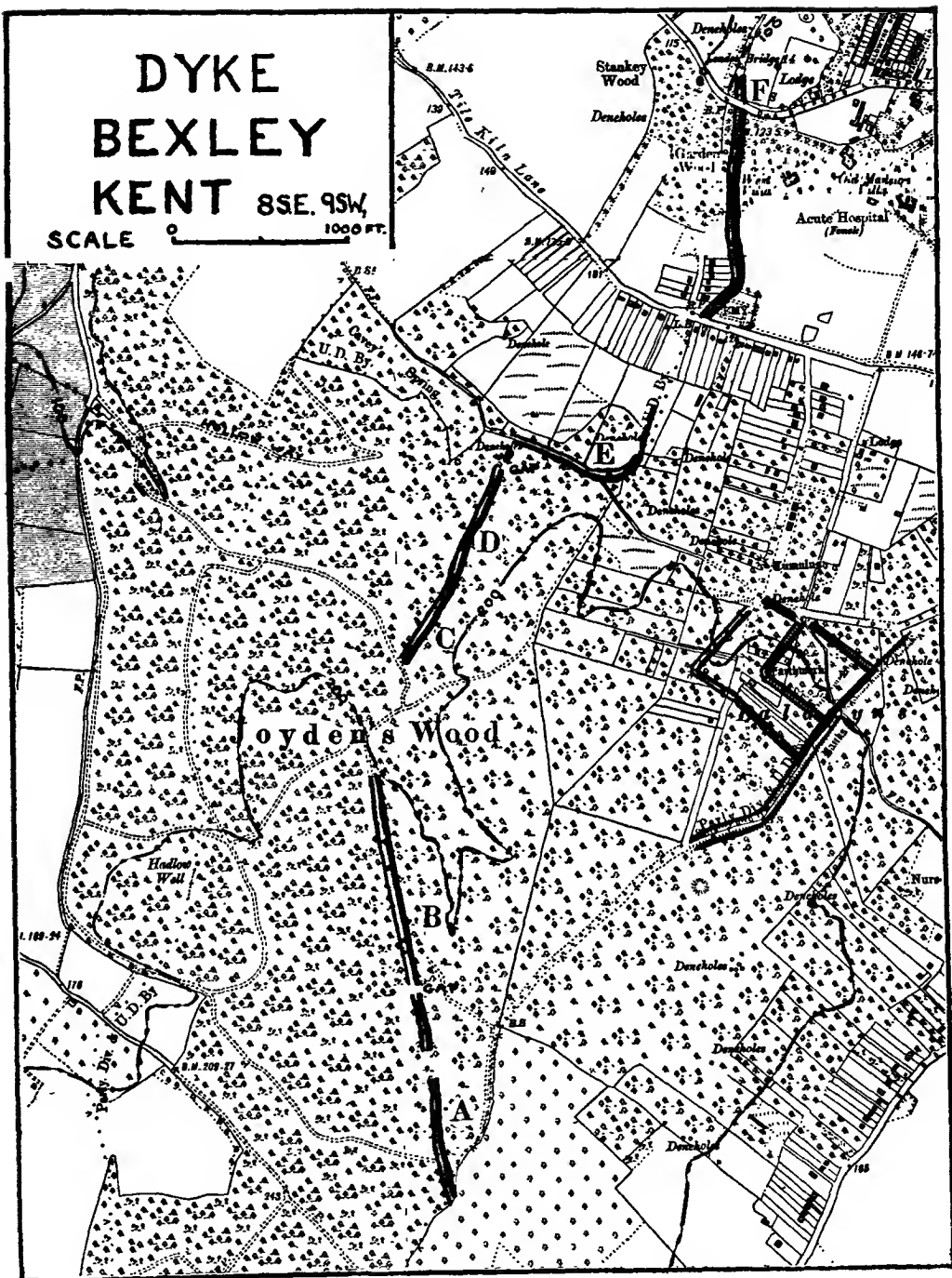
¹ *Cartularium Saxonicum*, i, 346. Grant by Coenuulf, king of the Mercians, to Uulfred, archbishop of Canterbury, of land at Bexley, on the river Cray, co Kent. A.D. 814.

The text is taken from a nearly contemporary copy of the charter.

² A plan of the earthworks in this wood accompanies the paper on 'Deneholes and Other Caves with Vertical Entrances', by F. C. J. Spurrell, in *Arch. Journ.* xxxviii, pl. 1, p. 405.

The dyke is shown on the plan, but is not mentioned in the text.

SCALE 0 1000 FT.



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The ancient boundaries follow the modern parish boundary. The relevant section is as follows :—

‘Ærest up of crægean on fulan rithe’ (First up from the Cray to the foul brook).

The ‘foul brook’ is a small stream which runs almost straight from Stankey Wood towards Crayford railway station.

‘andlang rithe oth thone fæstendic’ (along the brook to the strong dyke).

The parish boundary follows the dyke from Dartford Lane as far as the footpath through the wood.

‘andlang dices oth thæt gebÿhte’ (along the dyke to the bend).

The bend is the point on the footpath at which the parish boundary leaves the dyke, which here turns sharply through a right angle towards the south.

‘of tham gebÿhte andlang hagan oth cÿninges healh’ (from the bend along the hedge to king’s hollow).

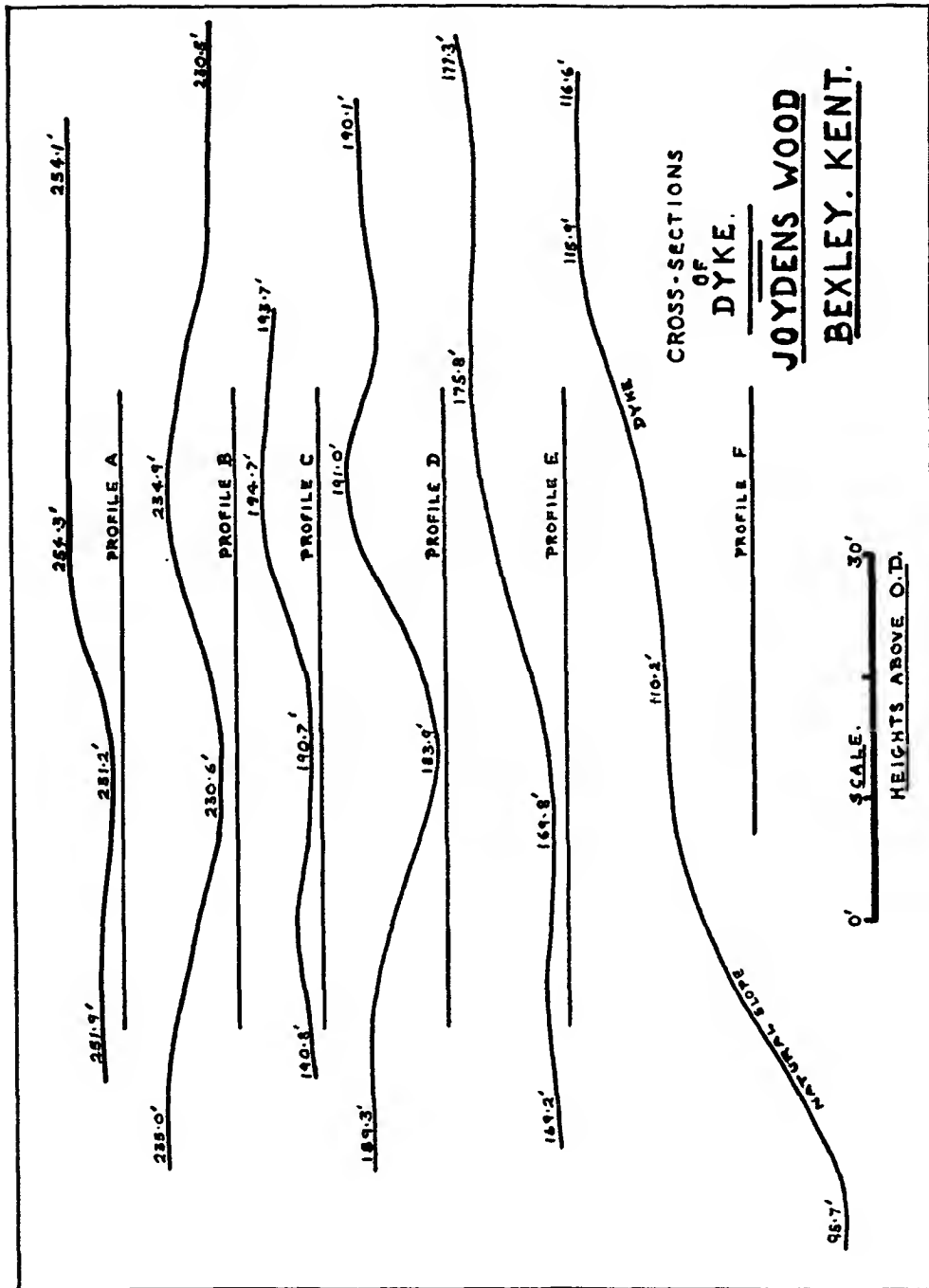
Cÿninges healh must have been somewhere near Cavey’s Spring.

‘thanon andlang hagan ut on crægean . . .’ (thence along the hedge out onto the Cray).

The general direction of the dyke is from north to south, with the ditch on the west, towards London. The subsoil is Thanet Sand north of the footpath, Woolwich beds on the higher ground to the south. North of the path, the character of the dyke has been much altered by cultivation, even in those parts which are now woodland, but to the south the ground seems mostly undisturbed.

North of Tile Kiln Lane, the dyke lies on the east side of a shallow valley which falls towards the north. Profile F is typical of this section, but the steep natural slope, on which the dyke ends, dies out a short distance south of Dartford Lane. At Tile Kiln Lane, the dyke turns west to cross the valley. Between the lane and the wood, cultivation has destroyed the dyke, but the line is continued by a lynchet facing east, just below the brow of the hill on the west side of the valley. On entering the wood, the dyke curves sharply through a right angle (profile E), and runs west for 600 feet, the footpath following the top of the bank. At a fallen-in denhole on the north of the path, the dyke turns at right angles towards the south. This is the ‘bend’ of the charter boundaries.

South of the footpath, the dyke is fairly uniform in character. From 500 feet to 1100 feet from the path is a very well preserved section. (Profile D.)



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Between the path and the valley, the ground slopes slightly to the west. South of the valley, the dyke runs for 1500 feet just below the brow of the hill, facing uphill. A cart-track follows the ditch for 1100 feet.

There are three breaks in the continuity of this part of the earthwork. For 100 feet south of the footpath there is no trace. The dyke seems to have been destroyed here by cultivation. On the south side of the valley, about 1500 feet south of the footpath, the dyke vanishes for a distance of 700 feet. There are traces of ancient cultivation here, but there is nothing to indicate whether the dyke ever existed. The third break is 700 feet from the southern end of the dyke. It is 200 feet long, where the line crosses a patch of marshy ground. It seems to be original.

In addition to these breaks, there are two narrow gaps, both apparently contemporary with the earthwork. One, 200 feet south of the footpath, lies on the line of a hollow way running east and west, and is approached by a causeway crossing the ditch. It is about 10 feet wide. The other, 1200 feet from the southern end of the dyke, carries the surface drainage into the head of the valley. It is 50 feet wide, and 4 feet deep from the top of the dyke.

The dyke seems to have continued to the south of the wood, but the ground has been cultivated for many years.

There is no evidence as to the relation of the dyke to the rectangular earthwork³ on the east, or to the numerous deneholes in the wood.

The dyke is of a post-Roman type, and is shown by the charter to be earlier than the 9th century. It may perhaps be connected with the battle of Crecganford, A.D. 457.

A. H. A. HOGG.

³ Excavated by Mr F. C. Elliston Erwood. Earthworks Report, 1926, p. 24.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

Professor Gordon Childe's Monro lectures, delivered in Edinburgh during February, are reported in *The Scotsman* for the 6, 9, 15, 16, 20, 22 and 27 February, and 1 March. It may here be stated that a new and rewritten edition of his *Most Ancient East* has just appeared (Kegan Paul, 15s) and will be reviewed in due course. The book is intended for those who wish to obtain a general idea of the origins of civilization in Egypt, Mesopotamia and India, and is a lucid and authoritative presentation of the facts.



Referring to two recently published books (*Functional Affinities of Man, Monkeys and Apes*, by S. Zuckerman, and *Man's Early Ancestors* by Le Gros Clark) Professor Elliot Smith said that Man

'was certainly sprung from a group of apes which many millions of years ago split into two series, one from which the chimpanzees and gorillas were derived and the other from which man's ancestors sprang. Both events in all probability occurred in Africa. The study of the evidence upon which these inferences were based provided a fuller understanding of the nature and potentialities of man and human nature. The fact of the common origin of man and the apes was revealed in the amazing identities of structure, so that it was a simple statement of easily demonstrable fact to call man a big-brained ape—a phrase that still aroused as intense emotions of resentment as did Huxley's so-called blasphemous lectures more than 70 years ago. It was none the less the duty of men of science to state facts plainly and unequivocally'.

He continued :—

'The outstanding distinctive character of man was his muscular skill, which found expression in the acquisition of speech. We

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could infer from the casts of the brain cases of Peking Man, Pithecanthropus, and Piltdown Man that speech came into being during the transformation of ape into man. The possession of speech enabled men to accumulate knowledge and traditional ways of thought and action, and brought them more and more under the domination of customary rules of conduct and opinion; for it was easier to borrow than invent, to copy than to think. 'Thus mankind became bound together by the slavery of imitation'. (*The Times*, 12 February, p. 9).



'When flying over the centre of Lake Daiet-er-Roumi an airman saw the ruins of a great quadrilateral building beneath the clear blue waters. Each side measured about 200 feet. At each angle was a square construction, and at one end there was a tower and a separate round structure'. (*Evening Standard*, 6 February).

We quote this for what it may be worth, without any guarantee. If the ruins can be seen they can also be photographed. No such photograph of submarine antiquities has ever appeared, though many claims to have *seen* them have been made. If this claim is well founded it would be well worth the while of an enterprising newspaper to send an aeroplane to photograph the remains.



We flew up and down along the sea-front at Alexandria in the winter of 1928, trying to discover the masonry alleged to exist there; but, apart from some possible remains in quite shallow water, we could discern nothing owing to the silt in suspension and the roughness of the sea. It does not necessarily follow that something may not be detected there under more favourable conditions.



A portrait of Sir Flinders Petrie is to be presented to University College on the occasion of his retirement from the Edwards Professorship of Egyptology, after a tenure of 40 years. (Subscriptions will be received by Sir Henry Lyons, 3 York Terrace, Regent's Park, London, N.W.1).

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An exhibition of antiquities from Arpachiyah, Assyria, was held in the British Museum during March and April. 'Most of the finds are painted pottery, some of the earliest specimens ever recovered from Mesopotamia, and the oldest known in the land of Assyria. None of the finds is dated later than 4000 B.C. and some may be much earlier.

The history of ancient Assyria is found to be as old as, and perhaps older than, that of the pre-flood settlements at Ur in South Mesopotamia. It is fitting that the memory of Gertrude Bell should be associated with an expedition which has discovered these remarkable antecedents of Assyrian civilization.

The objects on view were all found in the course of the first active archaeological campaign of the British School of Archaeology in Iraq'. (*The Times*, 19 March, p. 8).



Some of our readers seem to have been mildly horrified at the account of human sacrifice published in our last number (March 1934, pp. 58-62). The rite, however, is one that is very common amongst people in a certain stage of development; our own ancestors practised it here in Britain; and the facts of history must be faced. Amongst the Jews it seems to have been quite common; the best known instance is Jephthah's cremation of his only daughter in fulfilment of a vow (JUDGES, XI, 29-39; for the commonness of the practice in later times see JEREMIAH VII, 30, 31). This procedure, indeed, had divine authority (LEVITICUS, XXVII, 28, 29). In Britain, Columba was reported to have sacrificed one of his companions on the foundation of his establishment at Iona (see *ANTIQUITY*, December 1933, p. 465), but the authority for the statement is late and of Irish origin. Human sacrifice is now illegal in Palestine, India and other countries where it formerly flourished.



Mr T. D. KENDRICK writes :—

'In my paper "Polychrome Jewellery in Kent" (*ANTIQUITY*, December 1933, p. 429) I refer to the opaque cobalt glass, obviously imitating lapis lazuli, that was used in the ornamentation of many Style A cloisonné jewels. Tests very kindly made by my colleague Dr L. J. Spencer, Keeper of Minerals, of the blue fillings in the British Museum jewels of this Kentish kind showed that we have, in fact,

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nothing but pastes ; and I did not venture to include lapis lazuli—which comes from the East—among those imported luxuries and foreign fashions that in my view represent the influence in early Kentish archaeology of Byzantine Canterbury. I am glad to say, however, that one famous jewel has since come nobly to my rescue, for my friend Dr D. A. Allan, Director of the Public Museums at Liverpool, now assures me positively, after making careful tests, that the blue material in this resplendent brooch is really lapis lazuli '.



The Oriental Institute of Chicago is carrying out excavations, directed by Dr H. Frankfort, at Tell Asmar, a site described as ' north-east of Baghdad, between the Diyala river and the Persian border '. The most important of last season's discoveries was a stratified series of temples. The uppermost temple belongs to the period of Sargon of Akkad (' about 2500 B.C. '). Below this is one with the same ground-plan built of plano-convex bricks and belonging therefore, it is stated, to the Early Dynastic period. (*Times*, 10 July 1933).

This season a third temple has been found below these other two, also built of plano-convex bricks, and belonging to the Early Dynastic period, but ' to an earlier part . . . than has yet been explored elsewhere. It corresponds with the accumulation at Ur of the rubbish-heaps into which the famous tombs were afterwards dug '.

In a shrine of this temple were found

' a group of no fewer than 12 complete statues [statuettes ?] in a fine state of preservation, ranging in height from 12 in. to 30 in. Here, for the first time, we obtained a full impression of the polychrome effect of Sumerian sculpture. The faces were strongly set off by the black hair, to which bituminous paint was still adhering. The men wore long locks, hanging before the shoulders, and long, wavy beards, cut square at the ends. The eyes were inlaid, the eyeballs being made of shell and the pupils of bitumen or lapis lazuli '.

After some admittedly dangerous speculations about the rate of accumulation of debris, Dr Frankfort concludes :—

' The earlier part of the Early Dynastic Period [to which this third, lowest, temple is assigned], shown by our pottery to antedate the tombs of Ur, is represented by two metres of débris and would

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have lasted therefore approximately from 3000 to 2800 B.C. The importance of this result can only be seen in its true perspective if we remember that the date of the tombs of Ur is one of the most hotly debated problems in contemporary archaeology ; for neither Mr Woolley's date of 3500 B.C., nor that of his German critics, which places them at about 2600 B.C., nor those of the majority of scholars, who occupy intermediate positions between these extremes, has found general acceptance '. (*Times*, 5 April, pp. 11).

It will be evidence that the Oriental Institute's work is likely to advance knowledge and perhaps to settle some of the most controversial points in oriental studies.

o o o

The conclusion of ' the last season's work which the joint expedition of the British Museum and the Museum of the University of Pennsylvania will, as such, undertake on the site of Ur ' deserves some mention in these pages. We are not without hopes, from the phraseology of the above quotation, that it may not in fact conclude Mr Woolley's work on the site ; but there must be a huge accumulation of records to deal with, and not even Mr Woolley can fairly be expected to lead a double life, in field and study, without some occasional respite.

The last season's work was devoted to the clearance of a depth of 50 feet of solid débris, beneath which was found, strictly according to plan, the cemetery of the Jemdet Nasr period. The successful conclusion of such a task is in itself a minor triumph, though one of a kind we are now so familiar with at Ur that we are apt to underrate its real merits.

Two hundred graves were found ; and no less than seven hundred and seventy stone vessels amongst the grave goods. These, though all of foreign material—there is not the smallest fragment of natural stone at Ur—were of local manufacture.

The cemetery will enable one of the two classic predynastic periods to be securely correlated with other periods represented at Ur, and thus provide a rigid framework for the chronological history of the site, and of Sumeria generally. (*The Times*, 13 April, p. 13 ; illus. p. 18).

o o o

An Expedition is at work in the Northern Frontier Province of Kenya Colony carrying out a topographical and geological survey, and

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studying the archaeology of the area. It has the support of the Royal Society, the Royal Geographical Society, the British Association and other scientific societies and expects to be away for about a year. (*The Times*, 3 January 1934, p. 9).



Some excellent illustrations of the sculptures on the monumental stairways at Persepolis, which were discovered by the Chicago University Oriental Institute Expedition under Professor Herzfeld, were published in *Ill. London News*, 27 January 1934. The three sections of photographs reproduce a continuous panorama of the stairway, about 292 feet long, leading to the Hall of Darius, and enable one to form some idea of its magnificent conception.



An important example of Irish gold-work of the Late Bronze Age has been added to the well-known collection of similar objects in the National Museum of Ireland, Dublin. It is a collar of exquisite workmanship and was found near Ballyvaughan (on the shore of Galway Bay), county Clare. The collar weighs 8.9 ozs. and the external width is 12½ inches. It is believed to date from about 700 B.C. An illustrated description by Dr Adolf Mahr, Keeper of the Museum, appeared in *Ill. London News*, 17 February, 1934.



An account of the finds made during the 5th season's work of the French Archaeological Expedition at Ras Shamra is given by Professor Claude F. A. Schaeffer, the Director, in *Ill. London News*, 3 March 1934. The most important were two gold vessels—a bowl and a patera. The bowl is 17 cm. in diameter and covered with reliefs in repoussé, the principal subject being a lion-hunt. The vessels are dated about 14th century B.C. and are among the most beautiful examples of Phoenician work. The bowl and patera are illustrated in colour.



The chief finds during excavations at a Palaeolithic Settlement near the village of Malta, about 37 miles from Irkutsk in Siberia, are

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described by Dr Alfred Salmony in *Ill. London News*, 17 March 1934. They consist of statuettes of women, which compare with those found at Willendorf, Lower Austria, and date the Malta examples to Aurignacian times ; a perforated plaque decorated on the sides with spiral designs and snake pattern ; specimens of bird sculpture in mammoth ivory. All are well illustrated.



Particulars of some remarkable examples of Chinese jade found in the Old Lo-yang tombs in Western Honan, dating from the 5th century B.C., are given in *Ill. London News*, 10 March 1934, by the Bishop of Honan, Rev. W. C. White. They show great technical skill and a bold artistic conception, the designs including striking combinations of interlaced animals. This jade is also notable for its extensive range of colours. Over twenty of the best pieces are illustrated.



The wealth of the discoveries made by the Peabody Museum of Harvard University in the Province of Coclé, Panama, is shown in the description given by E. B. and S. K. Lothrop in *Ill. London News*, 31 March 1934. They include a gold helmet decorated with an Alligator God, jewellery of animal design, and gold breast ornaments. All were found in graves, the objects being packed closely together by the hundred. There is also a large collection of painted ware with an extraordinary variety of design. The Coclé culture is assigned to the period preceding the Spanish Conquest of Central America.



The first International Congress of Anthropological and Ethnological Sciences will be held in London from 30 July to 4 August 1934. It is the outcome of prolonged enquiries undertaken by the Royal Anthropological Institute, to which communications should be addressed at 52 Upper Bedford Place, London, W.C.1.



The Romano-British site at Bloxham (see *ANTIQUITY*, 1932, VI, 359) has yielded further finds which indicate that probably there was

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more than one settlement there, and that it was inhabited from early second century until well into the fourth. A report has been published in *The Bloxhamist* for July 1933.



MR STUART PIGGOTT writes :—

In my article on the Uffington White Horse (ANTIQUITY 1931, v, 37-46), I suggested that the resemblance between this figure and the horses on the Early Iron Age coins was first noticed towards the end of the last century. I since find, however, that this comparison had been made as early as 1758 by a member of the Stukeley family—not by the famous Doctor himself but by his daughter Anna, then aged 25. She had been staying in Berkshire and had dutifully given her father ‘an account of Whitehorse-hill, and the places thereabouts’, which he recorded in his diary, and of the Horse itself he writes :—‘ The figure of the horse on the side of the hill is poorly drawn, though of an immense bulk ; but, she says, very much in the scheme of the British horses on the reverse of their coins’.* Every credit must be given to Anna Stukeley for her acute recognition of this resemblance, which subsequent archaeological research has confirmed.

* *The Family Memoirs of the Rev. Wm. Stukeley, M.D.*, ed. by W. C. Lukis. Surtees Society ; 1880-85, II, 8.

Reviews

CELTIC EARTHWORKS OF SALISBURY PLAIN: based on Air-Photographs. Old Sarum sheet. *Ordnance Survey, Southampton, 1934.* 2s 3d, on paper folded. This map is printed on good strong paper, but may be obtained mounted on linen for 3s, and in sections for 4s.

The archaeological features are printed in red over the modern details in grey, with an admirably clear result. The scale is 1:25000 (approx. 2½ inches to the mile) and the contour intervals are five metres (16.4 ft.), both admirably suited to archaeological requirements, though the English equivalents might advantageously be stated for the benefit of the weaker brethren not accustomed to think in metres.

This is the fifth of the special maps of the Ordnance Survey illustrating definite archaeological and historical periods, and to the Field Archaeologist unquestionably the most useful, for it gives all the features so far revealed by air-photography and verified by survey on the ground. It covers the south-eastern part of the area and is one of six sheets which are to be expected 'at fairly regular intervals' and will complete the whole of the Plain. May we hope that a couple of sheets will eventually be added to the series to cover the Cranborne Chase extension as far as Blandford, which in old maps was included in Salisbury Plain?

The air-photographs are stated not to have been specially taken but to have been those of ordinary routine practice by the Royal Air Force and one wonders if the slighter banks would all show in the long dead grass which has grown up of late years. They are certainly concealed from the observer on the ground. It is probable that if the sheep ever comes into his own again and special photographs can be taken when the young grass is springing even better results would be obtained.

The sheet includes nearly the whole of Colt Hoare's map of his Amesbury Station, South District, and extends beyond it on the east into his 'Salisbury' map. It therefore gives one an opportunity of estimating the destruction which has taken place since 1812, as well as the additions now made possible by observation from the air, for very little that was visible from the ground escaped the eye of that careful observer.

In his Amesbury (South) map Colt Hoare shows III tumuli as against 96 in the corresponding area of the present map—not a large decrease—allowing for a group of four on Heale Hill and another of two south of Little Durnford which seem to have disappeared. Both his 'British Villages' are confirmed by the indications of banks—but neither shows any encircling boundary. On the other hand three unknown oval enclosures have been brought to light by the camera, of which one, about 300 yards in its long diameter, round the well known Hand Barrow on the Portway (which yielded a multiple interment with dolichocephalic skulls about 60 years ago), and another about half as big outside the east entrance of Ogbury would be specially interesting to dig.

The lynchets of Celtic fields on the map are very numerous, occurring on the high downs in small groups of ten or a dozen irregularly rectangular enclosures with sides of

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sixty or seventy yards. They are numerous on each side of the 'Old Marlborough Road' an undoubtedly prehistoric road running north from Old Sarum along the highest ground between the Avon and the Bourne. These groups are seldom more than a mile apart and there is no indication of any enclosing ditch round any of them.

By far the most interesting features shown on the map are those old puzzles the Linear Earthworks. There are no single banked ditches of defensive type, all are 'bivallate' ditches, some of them two or three miles long when joined up by air-photography.

A few of these ditches are not shown reaching as far as they did in Colt Hoare's day; one east of Little Durnford has disappeared and one long length is now covered by a plantation. Altogether he shows 3700 yards that do not appear on the present map. On the other hand over 7000 yards of new ditches have been added in his Amesbury (South) area and several important lengths outside it. The importance of these ditches as a problem for the Field Archaeologist may be gathered from the total length now shown—between 26 and 27 miles in an area about nine miles by six—and this is by no means the most crowded part of the Plain.

Two of the principal groups—Lake Bottom and Amesbury Down—as well as all the single pieces, lie amongst Celtic cultivation. The third and largest network in the bombing area round Old Lodge does not appear to do so; the ditches lie around the flint mines of Easton Down and Martin's Clump where no lynchets are shown. (It may be mentioned that this area is closed to the public except on Saturdays and Sundays).

The Director-General in his foreword to the map cautiously refrains from committing himself as to the purpose of these ditches, which Colt Hoare refused to accept as boundaries and considered to be 'covered ways or roads of communication from one British Village to another'. He suggests that they may have been both.

I think however that a study of this series of maps and of the ground itself will solve the problem. It brings out very clearly the following points:—

- (1) None of them suggest boundaries or enclosures of land even if one supposes such things to have existed in Celtic times.
- (2) All of them are ditches either double-banked or on the flat where the banks (or bank) must have been ploughed out.
- (3) Many of them go through or along the side of ancient cultivation.
- (4) Many of them make short sharp turns as if round the corners of fields.
- (5) Many of them give off branches or cross others more or less at right angles.
- (6) Some of the branches are quite short and end 'in the air', sometimes on the edge of a slope.
- (7) Some of the branches fork and continue for a long distance.
- (8) Some of them are now used as roads and are often continued as tracks without ditches or banks. It may be added that though this sheet gives only one rather doubtful example, many on the Plain and elsewhere lead to ponds or streams.

The suggestion that they were cattle-ways banked up to protect the cultivated areas where they passed through them, but unfenced or discontinued where they reached the open feeding grounds, seems to explain all the conditions.

Some of the long ones, *e.g.* the one shown going north through Old Lodge, can be traced for miles either as ditch or track and lead with scarcely a break to important ridgeways and ancient through routes. When this series is completed, and what the map reveals can be studied in the field, I am convinced that this fascinating branch of

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Archaeology will establish a very complete system not only of local cattleways but of long lines of communication dating from the Iron Age.

Users of the ancient Ordnance Maps must all have been struck by the artistic merit of the covers of the present series. The 'Celtic Earthworks' map excels them all in the appropriate art of the design and above all in the charm of the perfect little vignette. 'Atmosphere' and accuracy are all there—from the rugged ploughman with his Gallic 'bracca', to the wooden plough of caschrom type, and above all to the Celtic shorthorn—*Bos Longifrons*—(of the larger variety found on Easton Down) well worthy to have been the sire of all our domesticated cattle. 'V.H.C.' is the least that can be awarded him.

J. P. WILLIAMS-FREEMAN.

THE TECHNIQUE OF EARLY GREEK SCULPTURE. By STANLEY CASSON.
Oxford : Clarendon Press, 1933. pp. XIII, 246, and 96 illustrations. 25s.

Carl Blümel's *Griechische Bildhauerarbeit* (1927) marked a great advance in knowledge of Greek sculptural technique. Now Mr Casson has performed a most useful service in gathering together a mass of observations, for many of which he is himself responsible, upon the methods of technique followed from prehistoric times down to about 475 B.C., in bronze as well as in stone. He thus covers much more ground than Blümel, although he does not carry his studies down to so late a date. Underlying his book is the reflection that medium must control technique, and technique may control style, and he is disposed to look for more continuity between the prehistoric and the historic periods than there is at present evidence to support; it is difficult to decide whether the recurrence of technical methods is to be attributed to the preservation of tradition or to re-discovery. Attempts at chronology based upon technique must always be largely relative, since, while it is certain that the invention of a tool or process supplies a *terminus post quem* for works which betray its use, the converse is not necessarily true: all works which do not expose the use of the invention are not for that reason earlier. For instance, the sculptor of the Vari cave may, as Mr Casson says, 'be considered an old sculptor who . . . had retired to this cave, where he practised his art in the manner of a preceding generation'. But we may imagine that he had several years of active, if old-fashioned, productivity before retirement; and therefore purely technical chronological schemes must be regarded as ideal, although none the worse for that.

Mr Casson shows that in the pre-Hellenic Aegean world the greatest use was made of abrasive stones, particularly the emery of Naxos. Bronze, or copper, tools, unless used in conjunction with emery dust, were too soft for use on hard stones. Soft stones, such as steatite, however, were knife-cut, and surface details might be engraved with metal instruments. The identification of what appear to be gouge marks (and it would have to be a bronze gouge) on the much discussed Fitzwilliam Goddess, to which considerable space is devoted, causes it to be pronounced a definite forgery. For the Lion Gate at Mycenae, and other works (though apparently not at Orchomenos and in the northern part of the Mycenaean world generally) a tubular drill, with emery sand, was used. There is evidence for the use of metal tools set with points of emery, but tools found in excavations have not been sufficiently noticed and preserved.

Of the twilight that followed the fall of Mycenae there is naturally little to be said: Mr Casson has to admit the collapse of all the arts, but not the total disappearance of all traditions: e.g. glaze paint. His hypothesis of the survival of wooden cult-statues into historical times, though attractive and well sustained, seems to me full of doubt. Even Pausanias refused to believe that the Poseidon at Pheneos dated from the time of Odysseus,

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its reputed dedicator. But to my mind the greatest difficulty which his hypothesis involves is that I cannot envisage Minoan-Mycenaean wooden statues, of the kind whose existence Evans inferred from the bronze curls found at Knossos, as resembling such *xoana* as the Apollo of Amyklai.

Mr Casson seems uncertain whether he should give priority to the technique of gem-cutting or to that of wood-carving as the parent of the earliest Hellenic sculpture. At first (p. 45) he tells us that it was 'precisely this familiarity with soft material (such as steatite) which gave the impetus later to the cutting of ivory' at Sparta and elsewhere; then (p. 83) he says that the soft stone *xoana* were carved as if from wood, and that an intermediate stage appears in the very early Spartan bone and ivory *xoanon* figures, probably miniatures of the larger *xoana* of Artemis Orthia: these 'illustrate the process of wood-carving being translated into a much harder material. From ivory-carving it was a logical advance to stone'. The technique of soft stone sculpture (which knew cutting instruments, including the cutting compasses, but made practically no use of abrasives or of the punch) was at first applied to marble; but in Attica a distinctive marble technique was developed, of which the Dipylon head is an early example, and which is observable in a series in the National Museum at Athens, in which abrasives, and, for the hair, the punch play the chief parts. It is a pity that the text of this important section is defiled by confusion: the Dipylon head, described twice, in addition to the note on the plate, as of island marble, in one place becomes of Pentelic; and the same fate befalls Acrop. Mus. no. 589. These *corrigenda* do not affect the argument, but they disturb the reader.

Evidence for primary work of the earliest figures is only inferential. For the full archaic period we are able to rest secure on the assured deductions of Blümel from unfinished statues. His account is amplified by details of the very first stages, at the quarry and in the block. The sculpture of this period is considered geographically; a Naxian-Samian group, exemplified by the Hera of Cheramyes, is shown to have had drapery grooves produced by abrasion; a Peloponnesian group (head of Hera from Olympia, Corfu pediment, Kleobis and Biton) avoids abrasion, and shows a thorough-going use of the punch—the foundation of the classical body-treatment. The Hera is described as of a 'very hard blue limestone which must rank as marble': it is commonly said to be of very *soft* limestone, and so Treu described it. Such points require to be cleared up, and this book will have served its purpose if it draws attention to them. For Attica, sub-groups are necessary, and *kore* no. 679 provides material for a close technical analysis. Mr Casson shows that in such works (mid-6th century) the flat and bull-nosed chisels and the gouge were in full use for their respective purposes, and were used with increasing power in the 'full Chiot' group. He is inclined to place the introduction of the (simple) drill for artistic purposes at about 530–525, and the claw-chisel at perhaps about the same time, though probably nearer 550. In dealing with his 'copyist' group, Mr Casson might have added force to his contentions by stating that no. 683, a notable example, as he says, of this tendency, is of Pentelic marble as well as nos. 671, 676 (Dickins, *Acrop. Mus. Cat.*, no. 683, *fin.*).

The drill was freely used on the *korai* with elaborate drapery, both of island origin and of the 'Attic-Ionic' class, and reaches its fullest use in 'Antenor's' *kore* (no. 681): Mr Casson shows how the drills increased in size. But the use of the drill declined after c. 500, with the decline in popularity of elaborate drapery. On the other hand, a structural use was found for it in the boring of holes preparatory to the formation of a groove, in the manner which Professor Ashmole has described.

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Reliefs receive a chapter to themselves. Mr Casson insists on the difference, both technical and aesthetic, between high and low relief; the latter, he maintains, was always cut in its entirety with a flat chisel. He adds that in fact Blümel's main thesis is perfectly correct if applied only to sculpture in the round; it fails in the matter of relief. But Blümel himself (*Gr. Bildhauerarbeit*, p. 23) observed that while high relief goes with sculpture in the round, the same can only be said with great reservations of low relief, 'whose planes seem at once to crave a flat chisel'. However, he maintained that the use of the flat chisel was much more sparing than one would have at first supposed, and that so far as possible the punch and claw-chisel were used. One of his examples (and he did not deal lengthily with this point) was the same unfinished fragment of the Nereid Monument which Mr Casson adduces as evidence for a departure from the flat chisel technique for low relief in the 4th century.

Part I closes with a chapter on bronze work, which follows Kluge. For inlet eyelashes, the Delphic Charioteer might have been mentioned, as well as a Hellenistic work; he comes within the period with which the book deals, and, as I hinted in a previous review,* is probably one of the earliest examples of this technique, since the lashes are shown on Syracusan coins of the same period.

Part II is an account of the tools used, including reference to literary authorities and to Mr Casson's own experiments: it should establish a much needed nomenclature. Inevitably, it repeats a good deal which has been mentioned in part I; but we could spare two of the three references to the drill with which Odysseus and his men removed the Cyclops's eye! For the date of the introduction of the running drill Mr Casson inclines to Professor Carpenter's view that the Masters of the Nike Balustrade were responsible for it.

The book as a whole is a valuable contribution to the literature of the subject. It suffers from deficiencies of arrangement, and from repetitions; moreover, the author's views sometimes vacillate from one page to another, an index of the need for further study of a subject for which he has provided *prolegomena*. The illustrations, many of which show details of particular works, and are unique, are superb. The Derby Trustees are to be thanked for enabling Mr Casson to give them to us. W. L. CUTTLE.

LONDON MUSEUM CATALOGUES NO. 5: COSTUME. *Lancaster House, St. James's, S.W. 1.*, 1934, *paper covers, 2s, bound, 2s 6d.*

The London Museum catalogues are always welcome. They have a certain quality and distinction, which recommend them to the general reader. They are well produced and illustrated and they never abound in dullness. Above all they never attempt too much, but steer an even course between the very elementary and the highly advanced aspects of their varied subjects.

'Costume', the fifth of this excellent series, follows the tradition of its predecessors, and forms a really important addition to the literature of Dress. As may well be expected, the introduction, by Dr Mortimer Wheeler, is full of charm and sound common sense. It emphasizes the value of costume in the study of history, glances in passing at the evolution of a mode, cleverly illustrating the development of the 'bustle' from 1836 to 1887, through the crinoline of 1858 to 1869, and concludes with a word of warning on the fugitive dyes of the present day, and the difficulty of securing good examples of modern fashions, due to the want of storage space in modern flats. Thenceforth Miss Thalassa

* *Antiquity*, 1933, VII, 498.

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Cruso takes up the tale of men's and women's dress from Elizabethan days till almost the present time, dealing with the subject a century (more or less) at a time, aided by very illuminating line drawings by Miss Marian Laing. Still further to impress her readers with the salient points of her periods she adds a summary of her conclusions to each section, which is direct, simple and shorn of technicalities. There is great virtue in this, for the language of dress can be most irritating and confusing, calling for a glossary if the reader is to keep his, or her, head above water. Here indeed, is costume 'without tears'. Miss Cruso has also a very pithy section on the influences which affect costume; the influence of persons, notably royalty, on certain fashions, such as, for example, the Persian frock, introduced by Charles II, and the direct ancestor of the now obsolete frock-coat. In our own time, the late Empress Eugénie had a distinct influence on feminine fashion. Then again she writes well on the influence of public opinion on dress, and its action in restraining an over-exuberance of mode. Even more important is the way in which an entire fashion is discarded under stress of political emotion, as in the case of post-Revolutionary dress in France. Foreign influences were the offspring of the Grand Tour. Coming nearer to our own times, the influence of the dressmaker looms larger and larger, until it dominates the entire realm of feminine dress, and the very hub of fashion is fixed in Paris. She is quick too to seize the fact that changes in dress are swifter now than heretofore, owing to the mass production by the manufacturer of cheap reproductions which flood the market, and compel the woman to whom dress is a serious subject to seek something new in self-defence, lest she be mistaken for her maid.

The first section on Elizabethan and Stuart dress is excellent; the reader can follow the growth of the bombasted breeches of James I, the peascod doublets, and the standing ruff, to its final stages in Stuart days, when the frozen figures of the early Jacobean period thawed into the graceful and elegant Cavaliers. The stiffened ruff fell into a soft lace collar, the breeches, deprived of their stuffing of rags and horsehair, became easy and full, the padded sleeves in the same way falling comfortably about the arms, and the slashings permitting the fine linen shirt to lounge through elegantly. Such is the general scheme of the book, and it would be unfair to Miss Cruso to summarize her careful work further. One other point of interest is the bibliography. It is commendably short; only essentials are recorded, and she has included 'Punch', which is a mine of information upon the evolution of costume for nearly a hundred years.

The catalogue itself satisfies a long felt want: the description of the magnificent group of Coronation Vestments which occupies the place of honour in the London Museum. Every visitor pauses before this striking case, but when he is armed with this catalogue, the robes will assume a new and extraordinary interest. Here will be found the Full Dress of the Orders of Chivalry, Judges' robes, Civic robes, Uniforms, not only of Military interest, but of little known officials such as the 'Harbinger', an office now extinct, Elder Brothers of Trinity House, Ancient Firemen and Postillions. Nor is the theatre forgotten. There are dresses worn by David Garrick, Samuel Phelps, Grimaldi the Clown, Madame Patti, Sir Henry Irving and Pavlova.

The *minutiae* of dress have their place as well. Hats and bonnets, bewildering in variety, shape, and size; for the hands, gloves, plain and embroidered, some of personal interest like the white kid pair that graced the elegant hand of the 'gorgeous Lady Blessington'; for the feet, boots, shoes and clogs, with pointed toes, or severely square, in leather and velvet and silk brocade, with high heels, low heels or no heels at all, boots for riding and pumps for dancing, and with the stockings ranging from the sixteenth to

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the eighteenth century. Here indeed is a kaleidoscope of dress, and think of the people who have worn these clothes : Charles I, Queen Elizabeth, Henrietta Maria, Queen Victoria, George IV, Thomas Carlyle, Oliver Goldsmith, Sarah Jennings (Duchess of Marlborough), William Pitt (the younger), the Duke of Wellington; the very names echo the History of England.

A last tribute must be paid to the photographic plates, so skilfully taken with the aid of a mirror, that both back and front of the dress appear in the picture. The idea is beyond all praise and worthy of imitation.

Here is a convenient book at a reasonable price which can be commended to teachers of History; it will enable their pupils to visualize the past, and dress their historical characters correctly. The teacher who tells the well worn story of Sir Walter Raleigh's cloak has only to turn to plate III to make the picture complete. FRANK STEVENS.

SIGD, LJÅ OG SNIDILL AV DET NORSKE JORDBRUKS OPHAV. By A. W. BRØGGER, F.S.A. Oslo : *Instituttet for Sammenlignende Kulturforskning*, 1933. Series A, vol. XIV. pp. 73, and 18 figures. Price not stated.

This study of 'sickles, scythes and slashers in the dawn of Norwegian agriculture' is, as it describes itself, a 'contribution to the history of the peasant community', and as such is a welcome addition to the increasing list of studies of prehistoric agriculture that are being made in different countries.

The author takes as his text two discoveries in Norway: the one inland at Svenes in Valdres consisting of 30 early bronze spearheads and a bronze sickle—the only one of its kind from Norway—found in a district that was primeval forest; the other a hunting and trapping station at Ruskenes near Bergen, on the coast, which yielded bones of seal and deer, as well as of ox, sheep and pig, and also pottery bearing impressions of barley. The dating and relation of these two finds to one another are discussed. The main point seems to be that when the knowledge of corn-growing and of cattle-keeping was introduced, the old habits of hunting, trapping and fishing were continued side by side with the new arts, the bones of wild and domestic animals alike being broken for marrow.

A clear outline then follows of the spread of the arts of civilization, including those of corn-growing and cattle-keeping, from the 'Fertile Crescent' to northern Europe, and a picture of agriculture in Scandinavia (chiefly Denmark) during the Neolithic and Bronze Ages. Thus barley is recognized earlier than wheat, millet appears in the Early Bronze Age, and rye and oats in the Early Iron Age. Ox and sheep were the earliest domestic animals, followed later by pig and poultry; horse does not appear till the Bronze Age, but dog is not mentioned, which is strange, seeing that it appears in British neolithic sites fairly commonly. In Denmark grain was stored in large jars, and roasted bread has been found in Swiss pile-dwellings. But grain was not used for cereal foods only. The author contends that what wine was to southern Europe, mead (or beer) was to the north. In 1929 a Danish grave in an oak cist yielded a birch-bark bucket containing a drink for the dead made from wheat, cranberry, bog-myrtle and honey. Another example from the isle of Lolland, 2000 years later in date, was of similar composition except that barley took the place of wheat.

Ploughs drawn by two oxen are depicted on Swedish rock-engravings at Bohuslän, and a very similar plough of uncertain date was found in a peat-bog at Døstrup in Jutland. 'The plough is the father of the rectangular field', but so far no ancient fields have been

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identified in Norway. The famous hafted flint sickle from Stenild in Jutland is well illustrated and described.

But it is the relation between corn and cattle that interests the author most of all, and this is reflected in that between a sickle and a scythe. Except in those parts which are blessed with a specially favourable climate artificial feeding of cattle is necessary in winter, and this must consist of either hay or leaf-fodder, for the cutting of which scythes and 'slashers' have been identified in Iron Age finds. No Bronze Age scythes, however, have been found. Could the Stenild flint sickle have been used as a scythe equally well as a sickle? On the other hand, was the climate such that artificial foddering in winter could be dispensed with?

In the sub-boreal climate of Bronze Age times natural winter feeding of cattle was possible only in western Norway. Climate and geographical conditions thus divided the country into east and west culture-provinces. In the west there existed a mixture of hunting and fishing with semi-nomadic agriculture and seasonal migration of dwellings, while cattle could probably find natural pasture even in winter. In the east artificial fodder had to be found, and as possibilities of hunting and fishing were fewer, corn was likely to become of relatively greater importance. In this connexion it is significant to observe that the beautiful crescentic flint blades, which the author rightly regards as sickles rather than saws, are a feature of the east rather than of the west, and correspond in distribution with the rock-engravings. It is from this district that megaliths and pottery are largely absent.

In arguing that the crescentic flints were sickles the author might well have referred to the very obvious gloss that appears on many specimens and which is well seen in the excellent photographs he provides. Such gloss results from friction with the silica-containing stalks of corn or grass (see *ANTIQUITY*, 1930, IV, 184-6).

The coming of iron facilitated the clearing of forests and encouraged the building of wooden houses and boats. This led to a valley-ward movement and a distribution of population similar to the present. At the same time the change to a subatlantic climate with wetter and milder winters favoured the pasture-lands of the west, though the effect on the east is more difficult to gauge. Rye, which is a characteristic central European grain, now appears in Scandinavia, though the first evidence of it in Norway only dates from the migration period. Similarly oats, which appear in Denmark at the end of the Bronze Age, are not found in Norway before the Roman era. Barley, however, remained the principal grain, and wheat was common. The popularity of oats was due, no doubt, to its ability to stand the wet sea-winds better than barley, and its appearance in the north was perhaps partly due to the climate becoming wetter. In later times oat-straw was valued for fodder, while barley was largely reserved for beer. This may have been the case in the Iron Age also.

Coming to the consideration of agricultural implements, sickles, scythes and bills (or slashers) are singled out for special study. The main contention is that sickles were used not only for corn-cutting but also for gathering winter-fodder for cattle, whether hay or leaves, and that therefore they are evidence of cattle-keeping just as much as of corn-growing. It was not till the Iron Age that it became possible for implements more suited for these several uses to be developed, and hence arose the scythe and the bill (or slasher).

The iron scythe is practically confined to grazing countries, where winter-foddering was necessary, such as Switzerland, Norway, Sweden, Finland and eastern Europe. The bill or slasher, a curved knife with concave edge and a hooked point, mounted on a

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straight handle in line with the blade, is confined to Norway and Sweden, where it is called *lauvkniv*, or leafing-knife. The old Norwegian name was *snidill* (cf. Germ. *schneiden*, to cut). Gathering leaf-fodder is still practised in parts of Norway, and the author considers that at one time it may have been even more important than hay. The etymology of *sigd* (sickle) is studied, the conclusion being that the word goes back at least to the pre-Roman Iron Age. The *ljå*, or scythe, was invented elsewhere, but developed in Norway. Examples dating from Viking times are illustrated, and it is interesting to note that they differ in no important respect from the little one-handed scythes which are still in general use in the fjord districts for cutting hay. The blade, which is about $1\frac{1}{2}$ feet long, and is made of soft iron, is fixed at right angles to a nearly straight handle, $2\frac{1}{2}$ feet long. The present reviewer always uses one to cut the grass before excavation, and it is noteworthy that the type has recently been introduced into England unaltered except that it is made of steel. May it not be that *ljå* is cognate with Greek *λαῖον* (or *λήϊον*), standing corn? The importance of the scythe in old time was reflected in the number of metaphors into which the word *ljå* entered, and itself was due to the fact that the wealth of the people consisted almost entirely in cattle for the feeding of which the scythe was needed.

The spread of iron culture to Norway is attributed to the spread of the Celts in pre-Roman times. Reference is made to the great variety of iron-work, including scythes and sickles, at such sites as La Tène in western Switzerland, and an outline is given of the principal features of Roman agriculture in south Europe. This leads to a discussion of the relations between Scandinavia on the one hand, and the Celts and Romans on the other, in regard to cultural influence, and it is recognized that it is only by investigating the field-systems that such influences can best be studied. Several pages are devoted to an outline of our English researches on this subject, which the author considers to be of special importance. He emphasizes the distinctions that have been drawn between the 'Celtic' square-field system, the Teutonic strip-system, and the little irregular plots associated with the Neolithic and Early Bronze Age settlements of our western moors. Unfortunately no datable ancient fields have yet been identified in Norway; on the other hand there has survived down to the present day in many parts of Norway an old system of cultivating tiny plots of land reminiscent of the English primitive plots of Dartmoor, and which the author conceives may be an inheritance from the Norwegian neolithic period. These plots, called *reiter*, some of which are so small that it is picturesquely said that one could spit across them, were not ploughed but were simply dug with a spade or even rooted with a stick, and are an instance of the extraordinary conservatism of agriculture. Though it is not explicitly stated, one may infer from the description that it is corn that is grown on these *reiter*, and not vegetables as in our allotment gardens.

There follows an account of Professor Gudmund Hatt's excavations of houses and fields of the pre-Roman Iron Age in Denmark, with the very striking picture of farm-life there revealed. Here, not only did the cow-byre form part of the rectangular dwelling-house, as is still the case in certain of the western isles of Scotland, but corn was stored in large jars, and it has been shown that the wheat was roasted before being ground. (This, we understand, is still the practice in parts of Central Asia). The Danish fields are of Celtic type, and the question is raised as to their relation with the British examples.

The problem dealt with is that of the origin of Norwegian agriculture and the evolution of the farm down to Viking times. The whole study is well illustrated and is a welcome contribution to the literature of early agriculture. E. CECIL CURWEN.

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WHEAT IN GREAT BRITAIN. By JOHN PERCIVAL, M.A., SC.D.Cantab. *Published by the Author, Leighton, Shinfield, Reading, 1934. pp. 125, and 63 figs. 10s 6d (11s post free).*

Primarily intended for farmers and agriculturalists this book is also of considerable interest for archaeologists. Of late years attention has been paid to the still only partly solved problem of the origin of the cultivated cereals, the final solution of which, if it ever comes, will depend on the collection and careful examination of as many samples as possible of ancient grain, preserved by carbonization, and discovered during excavations all over the relevant parts of the world.

Though not professing to do so, the author makes a contribution to this problem by classifying botanically the fifty or so varieties of wheat found in this country at the present day. He also summarizes the discoveries of prehistoric wheat in Britain up to date. There are technical difficulties in the diagnosis of the varieties of wheat when it is carbonized, but it is to be hoped that Professor Percival's research work in this direction, aided by field archaeologists who discover grain in their excavations, will ultimately overcome these, and establish the main outline of the early history of our cereals.

On the subject of bread and the cereals that have in the past been used in the making of it, and also on the subjects of climate, cultivation, sowing and the yield of grain per acre, much of interest is forthcoming from early records and modern experiments, throwing light on what one may reasonably consider to have been some of the conditions of prehistoric agriculture.

The 63 photographs of ancient carbonized wheats and modern varieties are a particularly pleasing feature of the book. Archaeologists should encourage this work by purchasing copies.

E. CECIL CURWEN.

THE LIBRARY OF A. CHESTER BEATTY. Description of a hieratic papyrus with a mythological story, love-songs and other miscellaneous texts. By ALAN H. GARDINER, F.B.A. *Privately printed by John Johnson at the Oxford University Press and published by Emery Walker, Ltd., London, 1931. pp. 45, 31 plates in monochrome and 30 in line. Folio.* 30s.*

The papyrus here published for the first time, and most conveniently referred to as [The] Chester Beatty [Papyri, no.] 1, is the outstanding ms. in a group acquired by Mr Beatty, which forms the most valuable addition to Ancient Egyptian literature in recent years. The other papyri in the group were presented by Mr and Mrs Beatty to the British Museum, and are being edited by Dr Gardiner for the Trustees.

The mythological story which occupies the first sixteen pages of the recto of Chester Beatty 1 would by itself justify the editor's claim that this is the most important of a remarkable series of new documents. Though related in its boisterous tone and lack of fine writing to some of the earlier Egyptian folk-tales, it is unique in the literature of the country in that it is a tale, happily complete, entirely confined to the actions of the Gods and yet with no religious intention of any sort. It is pure story telling with Olympus as the stage. This is not to say that it is not full of instruction on a number of points of which we have hints from other, fragmentary and often corrupt, Egyptian texts and from classical writers; besides presenting us for the first time with a full account of one of the most familiar themes of Egyptian mythology, 'The Contendings of Horus and Seth', which is the title Gardiner gives to the story.

* We apologize for the long delay in publishing this review, for which we are not responsible.—Ed.

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The story, without any help from its style, which is bald and jerky, holds its own by a craftsmanship in construction and even more by the sheer fun of its telling. But though it will receive a unique position in the opinion of students of Egyptian, it will hardly rival Macaulay's ideal for his History, still less attain the nursery popularity of Sinbad, since the plot may be said to turn on an incident whose impropriety drags from the editor an accusation of 'lubricity' in the author. (If this were a modern writer the accusation would be just enough; an anthropological view would suggest that what is displayed is rather a coarse but very lively humour in the story-teller and his audience).

Humour is in fact the key-note to the whole piece. And though one is frequently impressed with the aptness of Gardiner's comparison with the Homeric stories of the Gods of Olympus, the satire here is too broad for Epic (which of course this is not), while the occasional apparent confusion of thought is inconsistent with the general lucidity of the plot and the directness of the narrative. Confusion is there—for the modern reader; but the ancient audiences would hardly have tolerated it so, and this is admittedly a singularly incorrupt text. It is difficult to escape the conviction that in the curious disintegration of the person of the sun-god into separate forms, sometimes even opposed one to the other, is to be found the point of a political satire draped around familiar fragments of mythology.

The three groups of lovesongs—the largest complete 'book' of seven stanzas—which are found on the recto and verso of the papyrus are only a little less exciting in their literary interest than the 'Contendings'. Together they amount to almost as much as is to be found in all our other MSS of this type; they are much less corrupt, and practically complete in themselves and consequently easier to translate than the examples that have long been known.

The comparison here, though I cannot find that Gardiner makes it, is with the Song of Songs; not a comparison of detail, but of general feeling as Peet (who had access to the texts before publication) pointed out in his Schweich lectures. But the catalogue of the beauty of the Beloved in the first stanza of the main collection of songs, is the first in a long succession of its type which passed through Spenser in almost the same form and was sublimated in *Love in the valley*. But, as we should expect, the soundest parallel is from the East, and one is recalled above all to the songs interspersed through the *Alf Leilah*.

Two short literary pieces—one an Encomium of Rameses v—and a few fragments of business documents complete the contents of the papyrus. The publication is handsome as befits the importance of the document. All the texts are reproduced in excellent collotype with Dr Gardiner's hieroglyphic transcription on the opposite page. Of the translations, it need only be said that it is unlikely that any other scholar living today could have made so much of a first edition; and while there is no grammatical commentary, very adequate footnotes make the text more intelligible to the non-Egyptological reader, besides supplying the student with much valuable information. All must be grateful to Mr Chester Beatty.

S.R.K.G.

EXCAVATIONS AT MINTURNAE. Vol. II, Inscriptions, part I, Republican *magistri*, with an appendix of classical references to the site. By JOTHAM JOHNSON. Rome: International Mediterranean Research Association; Philadelphia: University of Pennsylvania Press, 1933.

This volume is the first published of a series which will describe the site of Minturnae, the sea-port town on the deeply flowing Liris, and the scene of excavations by the

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International Association for Mediterranean Research. Minturnae, as classical authors make clear, was not an exceptionally important place in antiquity; its life and status were matched by not a few other towns on the Italian coast. It is, indeed, precisely this representative character which gives the site importance to students now, for most of the neighbouring towns (Terracina, Formiae, Fondi and Sinuessa), are overlaid by their modern successors, Minturnae being deserted for a hill-top site. Thus, the whole town, growing out of an Auruncan walled settlement into an early Roman colony later reinforced by Caesar, is open to the excavator. Its town-plan will illuminate the history of Roman colonial development, while its stratified levels, related to the classical references here collected, ought to yield deposits capable of giving to students of ceramics and minor objects just those chronological norms which are urgently needed to make their studies of service to the historian. This is the type of study which Minturnae positively imposes upon the student, because impressive architectural remains have not survived. Thus, those conversant with the application of these means to the recovery of history incline to look upon Minturnae as a picklock which will open a whole series of doors at present so fast closed as hardly to be visible.

Those who endorse this way of looking at the matter will especially welcome the list of classical quotations, as forming the framework upon which an interpretation of the remains will eventually be carried. It is almost complete, the *desiderata* being the picture of the place from the *agrimensores*, which will no doubt appear in the later topographical study, and the coasting lists preserved in the Ravenna Cosmography (IV, 32; v, 2) and Guido (34; 75). But the main theme of this volume is the facet of the town's history presented by twenty-nine manumission-records, stone altars later trimmed down and worked into the *podium* of an Imperial temple, after being burnt in a great fire. One of the stones is dated to 65 B.C.; others are more, some less, archaic in style. None can be later than the suppression of the *collegia* by Julius Caesar, if they really continue after the temporary suppression of 64-56 B.C.

The stones are important as giving information about both slaves and masters. It may be fairly assumed that the list of masters is a fairly representative and therefore reliable index of the composition of an old-established Roman colony at the critical period following the Social War. It is an interesting list: Roman families number 60 per cent., Italians 38 per cent. and Greeks 2 per cent. It was the Tiber which had flowed into the Liris; and this must represent the effect of the Roman colony, which was large in proportion to the primitive settlement. On the other hand, it is doubtful how many of the Italian names are Auruncan. The case for a survival of Auruncan folk does not depend upon the survival of their fortification after the massacre of 314 B.C., as Mr Johnson appears to think. Too little is known as to how that fortification was used by the victors. Until the Roman colony was founded, in 295, the little place may well have served as the conquerors' fort. Still less can we guess (on the evidence before us) how the Dipolis was constituted, and what the conservation of the original *enceinte* really meant to the new town. Thus, the chief service of the list is less to tell us, at two centuries' interval, how the original town was constituted, than to emphasize how essentially Italian the population of the late-Republican town remained. The slaves however, tell a very different story, whatever its true implications. To take the extremes out of the 312 souls, three are Celtic, one African, 48 are Italian and 205 Greek. This is the result of taking the names at face-value, and, as Mr Johnson points out, it raises in acute form the principles of naming slaves, the chief difficulty being the quantity of Greek names and the absence of Celtic ones. On this matter, two points are made. It

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may be that the non-Greek nationalities belonged to other bodies of which the records have perished. On the other hand, Greek names must in some cases disguise non-Greek folk. At all events, the list flies in the face of history, which vouches for large numbers of Celts in Italy about then. But this fact only raises yet another question, namely, what kind of slave was most likely to win manumission. It is clear that those employed upon heavy work, in field, wood or mine, were much less likely to win freedom than those in commercial or domestic labour. This last point is not made in considering the matter, but it will doubtless be borne in mind by those who make some final use of this valuable material, which Mr Johnson has been anxious to put at the disposal of others rather than study exhaustively himself.

I. A. RICHMOND.

A ROMAN VILLA AT LANGTON, NEAR MALTON, E. YORKSHIRE. By P. CORDER, and JOHN L. KIRK. *Printed for the Yorkshire Archaeological Society by the Oxford University Press, 1932. pp. 99, with 30 photographs and 28 figures. 15s 6d post free.*

In this the 4th report of the 'Roman Malton and District' series, the authors describe the excavation of a civil settlement at Langton, 3 miles southeast of Malton. The earliest occupation of the site was a military one, consisting of a small fort nearly a third of an acre in size—provisionally dated to the period of the earliest occupation of Malton, and probably a small outpost connected with the latter. It may be that some form of occupation lingered on, on a small scale till early in the 2nd century, but it was not till the beginning of the 3rd century that the civil occupation was at all intensive. The main north and south ditches surrounding the settlement probably belong to this period, and there are fragmentary remains of quite extensive buildings. In one of these was a small but compact bath-house which probably continued in use when house I in the western half of the area was constructed. This latter was a small dwelling house of the simplest type and was succeeded by a small corridor house at the beginning of the 4th century.

Then came the period of greatest expansion of the settlement, which was actively engaged in wheat production. A store house, threshing floor, drying furnace, and circular mill testify to the production of corn in some quantity and enlargements of the dwelling house mark the prosperity of the settlement. In the late 4th century there was intensive occupation, indicated by the coins and pottery.

The authors note that in the site are reflected the successive occupations of the fort at Malton. Of the period of the early camp there, there is at Langton the small military post. The Severan reoccupation of Malton (which would probably mean an increasing demand for corn) is marked by the first extensive settlement and house I, while house II and its numerous out-buildings reflects a steady demand for supplies of wheat in the middle of the 4th century. The occupation continued after the troubles of A.D. 367-9 and shows that, almost to the end of the century, the Signal Station System provided an efficient safeguard for settled civil life.

The photographs at the end of the book were mostly taken by Dr Kirk while Mr Corder is responsible for the notes on the pottery and plans. The book is well produced and continues the standard of the earlier reports of this series.

K. ST. JOSEPH.

QUATERNARY GLACIATIONS AND PLUVIAL LAKES IN BRITISH EAST AFRICA. By ERIK NILSSON. *Stockholm, 1932. pp. 101. Price not stated.*

With that feeling for the strategic point in a discussion which they have often shown Swedish scientists have directed their attention to Pleistocene and post-Pleistocene

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conditions in East Africa. Information about changes of climate that have taken place near the equator is very necessary if we are to solve some of the broader problems of the Ice Age. In 1926 Professor Percy Quensel found morainic material on Mt. Elgon and observed lacustrine sediments in the Nakuru-Naivasha basin. Consequently the Quaternary geology of the region was made the main object for investigation by an expedition, which was supported financially by the Swedish Africa Fund.

The outlines of the investigation were drawn by Professor Gerard de Geer. In the field Dr Nilsson received much help from the Swedish Biological Station on Mt. Elgon, and he acknowledges the value of his contacts with Mr E. J. Wayland and Dr L. S. B. Leakey. During the preparation of his report he received advice and suggestions from Professor Lennart von Post. The thesis under review was accepted for the degree of Doctor of Philosophy in Stockholm.

Traces of ancient glaciation were studied in most detail on Mt. Elgon, but attention was also paid to the other high mountains of the region. Shore lines and sediments were investigated in the Nakuru-Naivasha and Baringo-Hannington basins. The object of the work was to gather evidence of climatic change. Dr Nilsson describes the moraines on Ruwenzori, Mt. Elgon, Mt. Kenya, and Kilimanjaro, and refers to previous work done by others. On Mt. Kenya the oldest moraine represents a very extensive glaciation which is called *The Great Glaciation*. Very little of this moraine is left and it is much more weathered than the next oldest. The *Last Glaciation* had three great maxima which are marked by well developed moraines. There are also four or five other moraines higher up the mountain which indicate post-glacial stadia. The two main glaciations were separated by a very long, dry inter-glacial period. All the moraines examined on Kilimanjaro are ascribed to the Last Glaciation on the ground of their state of preservation. 'When the glaciers melted away from their maximum position (3600-3800m.) they readvanced or paused twice (4100 and 4150m.), while the ice-covering still had a considerable extent. Then there appears a long uninterrupted period of melting. It is not until we come to an altitude of 4650-4750m. that we notice three small oscillations or interruptions of the glaciers and a little further up there are another two at 5000m. and 5120m. In quite recent times at least one push forward has been made by the glaciers'. The author quotes Klutes' opinions that the complete analogy as regards the altitudes of the present and the ancient glaciers on Kilimanjaro must be due to similar conditions of precipitation with the same alternation between northeast and southwest monsoons. This, he says, implies that there has been no shifting of the equator or the poles. The close parallelism of the two snow-lines along the mountain chains of North and South America also 'gives support to the assumption that the Pleistocene glaciations were contemporaneous over the whole earth'. (85)

Epochs of colder and moister climates would have comparable effects on glaciers and lakes with no out-flow. Dr Nilsson levelled and mapped a series of wave-cut terraces, barriers, and deltaic deposits. This was not an easy task because they have in many places been hidden beneath later deposits or removed by erosion; moreover tilting has occurred in more than one direction. In the Naivasha basin he recognizes ancient shore-lines of lake I at 2029-2010m., of lake II at 1990-1947m., of lake III at 1982-1947m., of lake IV at 1959-1938m., of lake V at 1935-1928m., and of lake VI at 1917m. The present surface of Lake Naivasha appears to be about 1908m. above sea-level. In the Nakuru-Naivasha basin, and at higher levels than that of lake I, occur the Kamasian sediments, which have yielded lower palaeolithic implements. They are much faulted and appear to have been deposited by one or probably by several lakes. Further investigation

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may prove that they indicate several pluvial periods. Subsequently to the existence of lake II, two arid periods seem to have occurred, during which Lake Nakuru, which is now only 2.8m. deep, must have dried up. Dr Nilsson correlates the Kamasian lake or lakes with his Great Glaciation and his lakes I, II and III with the three phases of his Last Glaciation. Then followed a series of post-glacial, or post-pluvial, changes represented by the younger moraines and the lower members of his old lake-levels.

In chapter V the author compares the Quaternary changes of climate in East Africa with those in other parts of the world, and he gives a table (p. 90) offering a correlation of his results with those obtained by British workers in the Nile Valley and Fayum. He equates the Kamasian lake (or lakes) with the 46m. terrace; these were followed in both regions by an arid epoch. Lakes I, II and III are regarded as equivalent to the 35m., 28m. and 22m. lakes in the Fayum. A sub-arid period then intervenes in both regions. Lake IV, followed by a sub-arid epoch and a retreat of glaciers in Kenya, is equated with the 18m. lake of the Fayum, and lakes V and VI with the 10m. and 4m. lakes. He mentions that Dr Leakey considers his Gamblian, which corresponds with the author's lake I, to be of Mousterian age; and that the 35m. beach in the Fayum also contains Mousterian implements.

Dr Nilsson has made a very valuable contribution to our knowledge. His thesis is illustrated by nearly seventy photographs, maps and sections; and at the end of the book are three folding maps of Mt. Elgon, on a scale of 1:50000, showing the topography of the mountain and the maximum extent of its glaciers. There is also a folding plate with panoramic photographs of Elgon and Kilimanjaro. Anthropologists and geologists will await with much interest the publication of the results of Dr Nilsson's still more recent work in Abyssinia.

R. U. SAYCE.

LAS GLACIACIONES CUATERNARIAS EN LA PATAGONIA Y TIERRA DEL FUEGO (with an English summary). *Por* CARL CZON CALDENIUS. *Stockholm*, 1932. *pp.* 164.

This is another piece of work due to the inspiration of Professor Gerard de Geer. As the result of his suggestion that a geochronological investigation of the ice-lake sediments of Patagonia should be made, the director of the Argentine Geological Survey entrusted the work to the author and extended its scope to include the whole of the Quaternary geology. The main object was to obtain information which might make possible a comparison of the courses of glaciation in the northern and southern hemisphere. The present report is copiously illustrated with over a hundred good photographs, sections, diagrams, and maps—some in colour. At the end is a folding coloured map on the scale of 1:250000 showing the Quaternary terminal moraines and the Feni-glacial ice-dammed lakes of Patagonia and Tierra del Fuego.

Dr Caldenius recognizes four distinct systems of moraines which are situated mainly at or near the mouths of the Cordilleran valleys; they generally lie close within one another. Further up the valleys there are other systems of moraines, and there is one near the present glaciers. Erosion has been exceedingly active, and from some of the valleys the Quaternary deposits have been almost entirely removed. The oldest system of moraines has been so eroded and, in places, buried beneath later deposits that it is not certain whether it is a single system; the author thinks that it may prove to consist of at least two systems. The topography of the third and fourth systems is often extremely fresh. Ice-lake sediments, which are older than the third moraine-system, can be

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traced far up the valleys ; they therefore indicate a period when the ice had receded perhaps to its present position before it advanced again to build the third system of moraines.

The author does not rush at a correlation of his four groups of moraines with the four main phases in the Alps. Judging from the position of the third and fourth systems, their relation to the large Andine lakes, and the freshness of their topography, he is inclined to compare them with the outer and inner Würm moraines. The fifth system, much higher up the valleys, may correspond with the Bühl moraines. Later in the paper (p. 156) he correlates the fourth Patagonian moraine system, on evidence from clay varves, with the Middle Swedish (Fini-glacial) moraines, and the third Patagonian system with the Goti-glacial moraines of Sweden.

Records of two important sections of varve-clays, the one at Rio Corintos, the other at Laguna Blanca, and situated respectively inside and outside the fourth system of moraines, have been submitted to Professor de Geer, who finds a good correspondence between the varve-pattern of Rio Corintos and that of Sweden belonging to the period between Goti-glacial and Fini-glacial times. The Laguna Blanca varves are attributed to the later part of the Goti-glacial phase. Dr Caldenius concludes that the glaciations of both hemispheres were co-eval ; and he equates his third system of moraines in Patagonia with the Goti-glacial moraines of Sweden and his fourth with the Fini-glacial. It appears that the great ice-sheet in Scandinavia retreated from the Fini-glacial moraines two hundred years later than the much smaller valley glaciers of the Rio Corintos valley retreated from the corresponding moraines.

R. U. SAYCE.

MEMOIR OF THE ARCHAEOLOGICAL SURVEY OF INDIA, No. 37. An Archaeological Tour in Waziristan and Northern Baluchistan. By SIR AUREL STEIN. *Calcutta*, 1929.

In this volume, Sir Aurel Stein summarizes the results of his exploration in Waziristan and Northern Baluchistan. Owing to the turbulence of the frontier tribes, the area is little known, in spite of its historical importance. Lying between two great centres of ancient civilization, the Indus Valley and Southern Persia, it was highly desirable that it should be surveyed as soon as possible. As the result of Sir Aurel's travels, the known extent of the Indus Valley civilization has been greatly increased, and a large collection of pottery fragments are now available for comparative purposes. In discussing his journey from the Tochi to the Gumal, Sir Aurel draws an interesting parallel between the organization of this important sector of the frontier and the early Limes of the Roman Empire. These were military roads, usually following the main valleys, and far advanced beyond the actual administrative border, which it was their function to guard. The modern military roads, constructed after the Waziristan campaign, are conceived and executed very exactly after the ancient pattern. This must be acknowledged as one of the best Memoirs of the Archaeological Survey.

GREEK SCULPTURE AND PAINTING to the end of the Hellenistic Period. By J. D. BEAZLEY and BERNARD ASHMOLE. *Cambridge : University Press*, 1932. pp. xviii, 107, with 248 illustrations. 10s 6d.

By gathering in one low-priced book of convenient size the portions of volumes iv, v, vi and viii of the *Cambridge Ancient History* which deal with Greek sculpture and painting, together with the appropriate illustrations, the Cambridge University Press

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has produced incomparably the best short account of the subject in the language. Those who read these chapters originally will need no recommendation; they will be glad to possess them in a less cumbrous and scattered form. Others should now have no excuse for not making their acquaintance. Professor Beazley's phrases seem often to have the inevitability of perfection; to quote from them would suggest that his felicity needs searching out, and would deprive the reader of some of the pleasure of discovery. Professor Ashmole, who is responsible for the last six of the nineteen sections, has a pleasing and characteristic manner. The text remains untouched, except for a few immaterial omissions and for revisions which bring it up to date: thus Mr Payne's work is reflected in the treatment of Proto-Corinthian pottery, and the latest yields of the sea—the Artemisium Zeus and the Marathon boy—are included, as well as the New York kouros which has recently received much attention. The spelling of Greek names has been de-Latinized (with lapses in Professor Beazley's last section), and kouros and kore receive their enfranchisement, unbranded by inverted commas, italics or capitals. The illustrations are more generally successful than in *C.A.H.*: some new ones appear, both of recently discovered works and of new aspects of old ones. A number of the *C.A.H.* illustrations have been dispensed with, but the work of selection has been admirably carried out. The Dipylon head—poorly illustrated in *C.A.H.*—is omitted; instead we have the New York kouros, attributed to the same hand. The marginal references to the pictures are very convenient, and there are footnotes showing where pictures of objects not here illustrated may be found; notably to *Kunstgeschichte in Bildern*, that most useful collection. There is a bibliography and a table of illustrations.

W. L. CUTTLE.

THE ARCHAEOLOGY OF YORKSHIRE. By FRANK and HARRIET WRAGGE ELGEE. *Methuen*, 1933. pp. 264, with 2 maps, 60 illustrations. 10s 6d.

Dr Frank Elgee had already placed archaeologists under a debt of gratitude by his masterly study of *Early Man in North East Yorkshire*, and now increases this debt in presenting the present volume, one of outstanding merit in the series of County Archaeologies issued under the editorship of Mr T. D. Kendrick.

In its production Dr Elgee has been ably assisted by his Wife and under their joint authorship the book has gained much in human interest and general appeal by their judicious weaving of threads of early folk-lore into the archaeological fabric.

To compress a lucid and comprehensive account of the archaeology of Yorkshire within the limits of one volume of this size is no easy task. The authors were faced with an embarrassment of riches, for not only is Yorkshire the largest county, but within its borders it embraces abundant evidence of every phase of early civilization since the end of Palaeolithic times, when the uplands were freed from ice and the latest Palaeolithic hunters moved northwards and left meagre traces of their presence on the summits of the Pennine and Cleveland Hills. Tardenoisian immigrants from the Lincoln Ridge and Belgium followed, and settled extensively upon the high moors of south and west Yorkshire, where they mingled with the remnants of the Palaeolithic stock and developed a distinctive culture. In isolated areas of the wild eastern moorlands a degenerate form of this culture appears to have survived amongst scattered communities until the Bronze Age, thereby increasing the complexity of the archaeological problem.

The next well marked phase is the appearance of the long-barrow folk who, pushing northwards along the ridges of Lincolnshire, and the Magnesian hills of south Yorkshire,

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settled upon the limestone hills and moorlands of east Yorkshire, where 25 long barrows are recorded by the Elgees. In their account of these, they establish the true character of the Yorkshire long-barrows as a degenerate form of the chambered long-barrow of southwest England, and refute the prevailing misconceptions that they are merely two or more round-barrows joined together, or a local development of the round-barrow culture.

The Neolithic population was sparse and scattered, and not until the arrival of the Beaker folk were the Wolds extensively occupied. Crossing the North Sea from the Rhineland the invaders entered Yorkshire by the Humber estuary and sheltered inlets of the coast, and displaced, or absorbed, the long-barrow folk on the Wolds. Bolder pioneers pushed westwards to the Pennines and penetrated to the Aire Gap and beyond. Later, successive waves of immigrants introduced the Middle and Late Bronze Age civilizations, and the authors graphically describe how the uplands of east and northeast Yorkshire ultimately became one of the richest and most densely populated areas of Bronze Age Britain, connected by well defined trade routes with the Ribble and Mersey estuaries of the west coast.

Probably as early as 500 B.C. the first Celtic immigrants reached Yorkshire and established themselves on Castle Hill, Scarborough, where Hallstatt remains have been found, but it was not until the later, La Tène, phase of the Iron Age that iron displaced bronze in Yorkshire. The authors indicate how during the third century B.C. Gaulish charioteers overran east Yorkshire and established themselves upon the Wolds and gradually extended their territory over the whole of east and west Yorkshire but, for some reason, shunned the northeast moorlands which continued as a cultural backwater of Bronze Age culture. This was the fourth invasion of Yorkshire since the coming of long-barrow man, each entailing an overlap of civilizations. Dr and Mrs Elgee have, by careful research, disentangled these events and their impacts in a most convincing manner and present in the first eight chapters of the book a concise account, in well-ordered sequence, of Yorkshire's prehistory, documented by an abundance of records of typical objects, sites and monuments.

Notwithstanding the number of finds referred to, the book in no portion degenerates into a mere archaeological catalogue. Interest is maintained in a manner which will appeal to the general reader as much as to the student; though a more liberal use of footnotes in regard to the most important objects would have increased its value to the latter. The chapters on Roman Yorkshire, Anglian Yorkshire and the Viking Age call for special commendation as vivid representations of a sequence of facts set out in a manner not previously available.

The story of the Romanization of Yorkshire and the rise and importance of York and Aldborough as military centres, is graphically told and supported by a wealth of archaeological evidence carefully analyzed. Incidentally, it is suggested that the numerous hill-forts of Yorkshire, about which so little is known by actual excavation, are probably of Brigantian origin, constructed to oppose the progress of the all conquering Roman.

No less illuminating is the record of the Anglian and Viking invasions. The richness of the pagan objects from cemeteries and the numerous sculptured crosses and monastic ruins of these periods, as testified by the illustrations and references, indicate how completely Yorkshire was dominated by each in turn. So thorough was the Viking invasion, about the middle of the ninth century, that, as the authors point out, not satisfied with mere plunder they colonized the whole country, and Viking land divisions,

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Viking courts and Viking social organizations superseded those of the Angles, and still remain the fabric of the county divisions, its wapentakes and hundreds.

The book, of absorbing interest, closes with a survey of the Yorkshire earthworks of unknown age, amongst which the Scamridge Dikes are most notable. Various opinions have been held with regard to the origin and purpose of these. Greenwell assumed they were prehistoric tribal barriers; Mortimer, that they were covered ways of escape for the inhabitants of Troutsdale; Colonel Kitson Clark, roads gradually deepened by wear; General Pitt-Rivers, that they were the work of invaders advancing from Flamborough Head. Dr and Mrs Elgee discard all these theories and advance the suggestion that as the system of dikes form horn-shaped enclosures they are 'horngarths' for hunting purposes, into which wild animals were driven and slaughtered as they crowded towards the narrow ends. Strong evidence is advanced in support of this theory, notably that the dikes are situated in the royal forest of Pickering and form the centre of a well-defined system of earthworks within its boundaries. With regard to their antiquity, we are reminded that the dikes gave the name to the Wapentake of Dic, mentioned in Domesday, and must therefore have existed prior to 1086, and in the opinion of the authors they are probably of Anglian origin.

The volume includes a detailed archaeological gazetteer and a list of museums possessing Yorkshire antiquities. The authors are to be congratulated on having produced, in such a readable and concise form, the first record of Yorkshire archaeology treated as a whole.

A. LESLIE ARMSTRONG.

LA TRÉPANATION CRANIENNE CHEZ LES NÉOLITHIQUES ET CHEZ LES PRIMITIFS MODERNES. By DR ÉMILE GUIARD (Médecin-lieutenant des Troupes Coloniales). *Paris: Masson et Cie, 120 Boulevard Saint-Germain, 1930. pp. 126 and 13 plates. 30 francs.*

In a short preface to this book M. Paul Rivet refers to the 'beautiful collections of the Wellcome Historical Medical Museum in London'. Those interested in the subject of prehistoric and primitive 'holing' of the cranium during life and after death cannot do better than pay a visit to this museum, where they will find a series of experiments performed upon recent and dry human crania, with elementary implements (flint, obsidian, shell, shark's teeth, etc.) which demonstrate how the operation was performed by primitive people on the living skull, for very varied reasons, in widely separated countries; and also after death for the purpose of acquiring amulets.

The book is well and clearly printed in bold type; but, as in so many French books, is only bound by a thin cardboard cover. It is divided into an introduction, ten chapters, together with a summary of the author's conclusions in the last three pages. The thirteen plates at the end of the book contain five radiographed skulls. Radiography does not appear to me to be any help whatsoever in elucidating facts of diagnostic importance or of adding clarity to methods of technique as to how the operation in question was carried out.

The historical aspect of the subject shows that the re-discovery of this fascinating prehistoric custom really dates from the year 1865, when Prunières, a medical practitioner of Marvejols, discovered in a large dolmen near Aigüières, in the department of Lozère, a skull that had been operated upon during life, near to which were five fragments of cranial bone that had been sawn for some purpose. It was left to Broca to interpret this finding and his theory that these fragments were in reality 'amulets', and referred to a

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religious rite, has never been disputed. Dr Guiard mentions as pioneers in the early work connected with this discovery the names of de Baye, Lucas-Championnière, Fletcher, Muniz and MacGee. To these may be added Capitan and Cartailac, and three Englishmen: Sir Victor Horsley, Rev. J. A. Crump and Samuel Ella—the latter two being missionaries in the South Sea Islands where they witnessed this operation being performed in the most primitive fashion with flakes of obsidian.

In chapter II 'Pseudo-Trepanations' are referred to and by these is meant those occurrences which might be confused with or mistaken for the real operation. Dr Guiard does not give an exhaustive list, omission being made of congenital deficiencies of bone, which always happens in the parietal region of the skull and are often double and symmetrically placed.

Accounts are given of operations on the living subject and the cutting of amulets from the dead skull that bore signs of its owner having been operated upon during life, also mention of the kind of roundels that were fashioned.

The presence of cranial amulets in the dolmens of France by the side of skulls that had been operated upon during life demonstrate, as pointed out by Broca, the existence of an ethical rite. In prehistoric Peru, besides specimens of skulls that had been broken by battle-axes and attempts made, by rude surgery, to deal with these holes, there are other skulls that bear no traces of fractures, but have been deftly 'trephined', with stone implements, and these last, when placed side by side with the French specimens taken from their dolmens, look very much alike in their surgical workmanship; but the motives that brought about each of these similar results were very widely different. The difference consists in the presence or absence of amulets from the graves. Not a single cranial amulet has ever been found in relation to the Inca burials, for the good reason that it was against the religious principles of the Inca to permit the dead body to be mutilated in any way.

Chapter VI has reference to those tribes that are still in a stone-age culture and who, even at this day perform these operations on their living fellow tribesmen with obsidian flakes or other primitive implements. Melanesia and Polynesia among the Australasian islands are places where these operations are performed.

The T-sincipital, a curious custom, consisted in scraping the bone of the crown of the skull in both a longitudinal and transverse manner, in the form of a cross. Plate III shows this well and the new bone formed at the centre of the cross proves it was done during life. The reason is not known why such an operation was performed. Some think it was an initiation rite.

So many specimens of the ritualistic operation are discovered in the dolmens of France, that it leads one to infer that they were not by any means all done primarily for epilepsy. The prestige which the epileptic had on his own account was greatly added to if he successfully recovered from a 'holing' operation, which made him the envy of many other members of the tribe. It is not, therefore, to be wondered that those who were not epileptic were anxious to have the operation, so that they might win a prestige for themselves. Both the epileptic and the insane individual were revered in those distant days for the reason that they were not understood and what was not understood was supernatural and hence divine. Brain disorders and fits were considered to be due to possession of a devil. Now trephination will occasionally cure this condition and if the epileptic was cured of his epilepsy he actually gained ground in the eyes of his tribe for having successfully recovered from the operation.

In dealing with the geographical distribution of this operation Dr Guiard points

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out that it nearly always is found in brachicephalic skulls and not in dolicocephalic ones, which would be a valuable contribution to the study of this custom were it found to be consistently true. He mentions, however, in his last chapter (conclusions) that in Melanesia, where the operation is still practised, out of 500 skulls exhumed only 100 were brachicephalic.

A bibliography of 17 pages completes the book except for the excellent plates referred to earlier in this article. T. WILSON PARRY.

A HISTORY OF THE ROMAN REPUBLIC. By CYRIL E. ROBINSON, assistant master at Winchester College. *Methuen*, 1932. pp. xii, 471. 6s.

It is difficult for a historian of the Roman Republic to select from the mass of details before him those which are ultimately important. Mr Robinson has shown a nice discrimination in giving us just enough detailed background to justify his generalizations and make the sequence of events intelligible. After a slight sketch of the prehistoric age in Italy, he deals shortly with the kingly period, the events of which he considers to be mostly legendary, though a substratum of historical truth can be traced even in the traditional account of Servius Tullius.

In telling of the struggle of supremacy in Italy he necessarily excludes most of the picturesque stories of Livy's narrative, but strongly emphasizes the importance of the sequels, viz. the political awakening in the early 3rd century and the recognition, at the time of the embassy to Ptolemy Philadelphus, that Rome is a power which counts with the outside world. The results of the Carthaginian Wars and the spread of Hellenism are admirably described, and the short character-studies with which the book abounds serve to illustrate and explain the events of history. We have a clear picture of Hannibal's personality and ambitions; the elder Cato is treated in a way which may seem too sympathetic. The book practically ends with the death of Caesar, but an epilogue of a dozen pages carries us on to Actium. Mr Robinson regards Augustus as a man of exceptional talent and perseverance, but lacking in the originality which characterized Caesar. J. F. DOBSON.

THE MUSEUM JOURNAL. Nos. 3-4, September-December, 1931. *Published by the Museum of the University of Pennsylvania, Philadelphia.*

These two numbers of the MUSEUM JOURNAL contain reports of two excavations with which the University of Pennsylvania is closely associated. The second report is Dr Woolley's excellent report of excavations at Ur in 1931. This is accessible elsewhere and is probably by this date familiar to readers of *ANTIQUITY*. The first report is that of Dr Schmidt who worked at Fara in 1931. This is probably less familiar and will take up the whole of this notice.

Dr Schmidt describes the methods and confessedly 'tentative' results of his work at Fara where Koldewey, Andrae and others worked before him. His small-scale operations at a few selected points on the Fara mound are first outlined in order of calendar from 23 February to the end of April. Then he arranges the finds in order of periods:—Fara III, the Period of the Third Dynasty of Ur; Fara II, the Period of the early Sumerians; Fara I, the Painted Pottery Age (Jemdet Nasr). This division suggests Dr Schmidt's 'belief' that the Fara folk of Fara III and II were distinct from the Fara folk of Fara I.

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Here, in summary, are the finds arranged by Dr Schmidt under the three periods.

FARA III. Two tablets (one dated Gimil Sin 1). Pottery: ('bowl has an offset rim which forms a definite "neck"; bell-shaped spout with thin perforation; a colander spout'). Figurines: ('delightful'; elaborately dressed women with paraphernalia of divinity or royalty'). 'Communal burial'; not sacrificial; perhaps in epidemic; hurriedly disposed bodies; bones interlocked; no mortuary vessels; no ornaments.

FARA II. Tablets: 85 archaic, possibly one school-tablet; only 3 baked; bi-convex, squared with round corners, even circular; one series found in a drain pipe. Burial: 37 graves; plain mat and coffin equally; vessels and beads; suggesting as Germans said, that part of mound was necropolis. Architecture: straw tempered, sun-dried, plano convex, bricks. A well-constructed granary. Mud wall fragments below the brick foundation. Glyptic: 'the most attractive of our finds'; part of a seal cylinder impression on dark grey clay label, is a 'beautiful, modelled Sumerian, clean-shaven face, having skull cap and long robe with lengthwise seam'. Also, a standing bull 'artistically still more perfect'. Pottery: crude; wheelmade. Metal: Fara never knew an Iron Age.

FARA I. Below 'an alluvial layer at a depth between 4 and 5m. below the mound's surface'. No traces of architecture; no animal or human remains. Pottery: rarely pleasing in form; monochrome, bichrome, trichrome decorations of simple geometric designs. Forms resemble al-Ubaid period. Burials: two graves; jar close to the skull; skeletons lay on right side. Seal cylinders of very archaic type.

Dr Schmidt makes a few conjectures: *e.g.* duration of Period II is approximately 'from about the middle of the IVth millennium to the beginning of the Sargonid period (about the 27th century)'; that the distinction between the people of Fara III and II and the people of Fara I, is 'utter' 'linguistically, culturally and perhaps racially'. This is clearly guess work and not history.

Some of the finds are well illustrated by plates. A neat map at the beginning of the report puts Fara clearly in its place: *then* only 60 miles removed from the Persian Gulf; *today*, 200 miles away.

T. FISH.

THE SCRIPT OF HARAPPA AND MOHENJO-DARO AND ITS CONNECTIONS WITH OTHER SCRIPTS. By G. R. HUNTER. *Kegan Paul, Trench, Trubner and Co. Ltd.*, 1934. pp. XII, 210, with 37 plates. 21s.

As its preface states, this work was submitted in manuscript to the University of Oxford in supplication for the degree of Doctor of Philosophy; and it would seem that the book is a photographic reproduction of the original manuscript. Issued in such a form it does not merit the price asked for it; moreover, the typing should have been done as carefully as possible, the headlines centrally placed, and corrections and additions should not have been made in a microscopic handwriting.

In his analyses of the Indus Valley script, Dr Hunter seems to have explored every avenue and every arrangement. He claims to have discovered the signs for 'god', 'servant or slave', 'son', a dative and an ablative, and if these interpretations be accepted by philologists some advance has been made. He suggests the possibility that Proto-Elamite, Sumerian and the Indus Valley scripts had a common ancestry, and that perhaps Egypt should be included with these countries. On other grounds I am prepared to agree that there is a possibility that the cultures of the first three countries

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at least were derived from a common source, and there is a certain amount of cranial evidence to support such a view. In eight tables Dr Hunter compares certain signs in the Indus script with Egyptian, Proto-Elamite, Sumerian, Brahmi, South Semitic, Phoenician and Cypriote characters, but some of the comparisons seem to me far-fetched. Similarities are to be expected with the scripts of early Elam and Sumer and they are in fact very striking, but the resemblances further afield are by no means convincing.

In an introduction of four pages Professor Langdon states that 'there can be no doubt concerning the identity of the Indus and Easter Island scripts'; the latter is, however, written on wooden documents obviously of no great age, and I must confess that I am quite incredulous. Even if the Indus Valley people had been a maritime race, which Dr Hunter proposes but for which there is as yet no definite evidence, the distance of this very remote island in the Pacific from the shores of India would even in modern days make such a voyage an impossible feat for a small sailing vessel. As evidence that the people of the Indus valley were seafarers, Dr Hunter points out (p. 13) that their sites were on the banks of navigable rivers—so were many ancient settlements; that the fish sign is greatly used in the script—but there are fish in rivers as well as the sea; that bitumen was brought from overseas—but the bitumen used at Mohenjo-daro (in one building only) was readily obtainable in Balūchistān; and, lastly, that the absence of seal impressions at Mohenjo-daro and Harappā argues that the seals were principally employed for stamping merchandise for export purposes. I am afraid none of these arguments carries very great weight. Two representations of boats have been found at Mohenjo-daro, one of which is mastless and might, therefore, have been exclusively used for river traffic; but on the sum of the evidence it is quite probable that a very considerable amount of trade was done with Sumer and adjacent countries by sea as well as by overland routes.

It is a great pity that no reference is made to the work of other scholars on this script; and though this book is only now published, no mention whatever is made to the matter contained in *Mohenjo-daro and the Indus Civilisation*,* edited by Sir John Marshall, which was issued in 1931. If he had referred to this work, Dr Hunter would have avoided a number of mistakes. For instance, in discussing the age of the Indus Valley civilisation he adduces from *black marble seals* (p. 15) evidence of an early date, whereas only one marble seal has been unearthed at Mohenjo-daro, and that is white and an importation. What he mistook for black marble is black steatite, and seals of this stone are no more primitive or foreign than those of white steatite, of which most of the seals were made. Similarly, the *black marble bracelets* referred to on p. 26 are in reality hard-baked clay; and that the fragment of a silver bar mentioned on p. 16 is not incised with late Sumerian characters is clear from MD, p. 519.

I cannot accept the author's identification of the inscribed copper tablets from Mohenjo-daro as coins (pp. 26–28). If they had been, one would expect them to occur in groups and, moreover, to be as plentiful at Harappā, where only one specimen has been found, as at Mohenjo-daro. That they were amulets appears certain. In most cases the inscription on one side of these objects appears to be definitely associated with the particular animal on the other side. No. 30 in Dr Hunter's list is a rhinoceros and not an elephant (MD, cxvii, 7), and the inscription is the same as that on no. 31, where also the animal is a rhinoceros. The beast on no. 43 is not a reindeer but a hare, and the

* Afterwards referred to as MD.

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inscription agrees with that on no. 44 (MD, cxvii, 5). On the reverse of those tablets on which there is an antelope looking backwards (it is not a bull), there is the same group of signs (MD, cxvii, 1; cxviii, 1); and another similar specimen is shortly to be published. The exceptions to this regular association of animal and inscription on these copper tablets are so rare that there is every reason to believe that the inscriptions definitely refer to the animals or the deities that they represent, though that is certainly not the case with the seals.

On reference to MD, cxviii, 9, it will be seen that the clay prism mentioned by Dr Hunter on p. 25 shows a figure of the unicorn-like animal being carried in procession, with its cult-object (?) behind it and preceded by two men clearly carrying standards and not tables-of-offerings, as he suggests. The circular seal mentioned on p. 31 has only *six* animal heads (MD, cxii, 383); it therefore cannot be the beast familiar to the writer of the *Apocalypse*. I purposely quote these inaccuracies to show that the author of this book could have revised his hand-copies by reference to the already published material.

Those who have worked upon the Indus Valley script are all agreed that it is to be read from right to left, and that it is not alphabetic but a mixture of the phonetic and ideographic. Dr Hunter identifies 234 distinct signs as apart from compounds.

The numeral signs present a problem, and Dr Hunter thinks with Mr Smith and Mr Gadd that in particular cases these signs do not denote numbers, but have a phonetic value. On p. 98 it is stated that it is not certain how the number 10 was written. A clue to this number has lately been found in a group of inverted u-shaped marks incised on a copper blade-axe in association with a series of vertical strokes that appear to be digits, making up the number 76 in all. An inverted u-shaped sign denoted 10 in ancient Egypt.

In conclusion, I should like to add something to several of Dr Hunter's identifications. The horned man amongst the signs, which he identifies as the sign for a deity, is comparable with the horned figurines of pottery that are so frequently found at Mohenjo-daro. The point that appears between the horns on the pictographs is probably the little sprig of flowers or leaves that is seen so frequently on the heads of the deities on the seals (MD, vol. I, pl. xii, 18). The four-legged animal (pp. 124, 190) is most probably a turtle and not a beetle; several model turtles have been found, as well as their actual plastra. Also, the sign identified as an umbrella (parasol would have been a better word) on pp. 105, 169, is surely a leaf of some kind; it appears quite often among the devices on the painted pottery (MD, xc, 18).

Despite these inaccuracies and shortcomings, this book is a painstaking endeavour to solve various problems in connexion with a very interesting and important script, and it should be in the hands of all students of the languages of the Ancient East.

ERNEST MACKAY.

CORRIGENDUM

Mr Stanley Casson points out an error in printing his review of Nilsson's *Homer and Mycenae* in our March number. On p. 112 *lines* 35, 36 should read as follows:—
... Persson had the name Ποσειδάφορος. Prof. Nilsson without explanation gives here the transcription Ποσειδάφορος.

Books Received

- THE CENOTAPH OF SETI I AT ABYDOS, by H. Frankfort ; with chapters by A. de Buck and Battiscombe Gunn. Egypt Exploration Society, Memoir no. 39 [*Milford, London*], 1933. Vol. I, text ; vol. II, plates.
- THE ARCHAEOLOGY OF SURREY, by D. C. Whimster. *Methuen's County Archaeologies*, 1931. pp. 254.
- MEXICO BEFORE CORTES, by J. Eric Thompson. *New York and London : Charles Scribner's Sons*, 1933. pp. 298. 10s 6d.
- THE ROMAN FORT AT CADDER, NEAR GLASGOW, by John Clarke. *Glasgow : Jackson, Wylie & Co., 73 West George St.*, 1933. pp. 93. 12s 6d.
- THE RISE OF THE CELTS, by Henri Hubert. *Kegan Paul* [Hist. of Civ. series], 1934. pp. 335. 16s.
- WILLIAM THORNE'S CHRONICLE OF ST. AUGUSTINE'S ABBEY, CANTERBURY, now rendered into English, by A. H. Davis, with an introduction by Prof. A. Hamilton Thompson. *Oxford : Basil Blackwell*, 1934. pp. 740. 32s.
- OLDAWAY ; DIE SCHLUCHT DES URMENSCHEN, von Hans Reck. *Leipzig : Brockhaus*, 1933. pp. 308. 8M.70 and 10M.50.
- LES SEPULTURES CHEZ LES PRÉGERMAINS ET LES GERMAINS DES AGES DE LA PIERRE ET DU BRONZE, par Emile Metzger. *Paris : Emile Nourry, 62 rue des Ecoles*, 1933. pp. 130. Paper covers : price not stated.
- DER GESETZMÄßIGE LEBENSLAUF DER VÖLKER ALTÄGYPTENS, by Hartmut Piper. *Leipzig : Theodor Weicher*, 1933. 4.20 RM.
- EXCAVATIONS AT ANCIENT THEBES, 1930-31, by Uvo Hölscher. [*Camb. Univ. Press, England*]. *Univ. of Chicago Press*. Oriental Institute Communications, no. 15. pp. 65. 5s 6d.
- TELL ASMAR AND KHAFAGE—The first season's work in Eshnunna 1930-31 ; by Henri Frankfort, Thorkild Jacobsen and Conrad Preusser. [*Camb. Univ. Press, England*]. *Univ. of Chicago Press*. Oriental Institute Communications, no. 13. pp. 112. 9s.
- DIE HETHITISCHE BILDERSCHRIFT, by Emil O. Forrer. *Univ. of Chicago Press*. [*Camb. Univ. Press, England*], 1932. pp. 62, in German. 6s.
- VORGESCHICHTLICHE FORSCHUNGEN HEFT 8. DIE STEIN- UND KUPFERZEIT SIEBENBÜRGENS, von Hermann Schroller. *Berlin : de Gruyter*, 1933. 18M.
- OPGRAVINGEN OP HET DOMPLEIN TE UTRECHT. *Haarlem : H. D. Tjeenk Willink & Zoon N.V.*, 1934.
- NIEUWE PRENTSCHE VOLKSALMANAK, 1934 (52 jaar). *Uitgave van van Gorcum & Comp., aan den Brink, Assen* [Holland].

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- CAMBRIDGE EXCAVATIONS IN MINORCA: TRAPUCÓ, part 1; by Margaret Murray. *London* : Quaritch, 1932. pp. 50, and 52 plates. 12s 6d.
- THE EXCAVATION OF TELL BEIT MIRSIM, vol. 1, The pottery of the first three campaigns, by W. F. Albright. *Annual of the American Schools of Oriental Research*, vol. XII (for 1930-31), 1932. pp. 94, and 71 plates.
- TWELVE CENTURIES OF ROME (753 B.C.—476 A.D.) by G. P. Baker. *G. Bell & Sons*, 1934. 16s.
- THE FEAR OF THE DEAD IN PRIMITIVE RELIGION : lectures delivered on the William Wyse Foundation at Trinity College, Cambridge, 1932-3, by Sir James George Frazer. *Macmillan*, 1933. pp. 204. 10s 6d.
- THE FLOWING VASE AND THE GOD WITH STREAMS, by E. Douglas van Buren. *Berlin* : Hans Schoetz & Co., 1933. pp. 149 and 23 plates. Price not stated.
- THE ANCIENT SYNAGOGUE OF BETH ALPHA : an account of the excavations conducted on behalf of the Hebrew University, Jerusalem, by Eleazar L. Sukenik. *Univ. Press, Jerusalem [Milford, London]*, 1932. 35s.
- THE WOODLANDS AND MARSHLANDS OF ENGLAND, by H. A. Wilcox (Mrs G. S. Treleaven), with a foreword by Professor P. M. Roxby. *Univ. Press of Liverpool [Hodder and Stoughton, London]*, 1933. 2 maps with 55 pages of explanatory text. 6s.
- FOSSIL MAN IN CHINA : The Choukoutien cave deposits, with a synopsis of our present knowledge of the late Cenozoic in China, by Davidson Black, Teilhard de Chardin, C. C. Young and W. C. Pei ; edited by Davidson Black. *Memoirs of the Geological Survey of China (Series A, no. 11) Peiping, May 1933.* 82 text figures, 3 tables, 6 maps. In English and Chinese, mainly English.
- CATALOGUE OF WALL-PAINTINGS FROM ANCIENT SHRINES IN CENTRAL ASIA AND SISTAN, recovered by Sir Aurel Stein ; described by Fred. H. Andrews. *Delhi : Manager of publications*, 1933. Rs. 5-6 or 8s 9d.
- ENGLISH CHURCH CRAFTS SERIES. *Published by Messrs Batsford.* (1) ENGLISH CHURCH WOODWORK, by F. E. Howard and F. H. Crossley (1917), 25s ; (2) ENGLISH CHURCH FITTINGS, by Aymer Vallance (1923), 21s ; (3) OLD CROSSES AND Lych GATES, by Aymer Vallance (1920), 12s 6d.

These volumes have now been re-issued at prices considerably less than when originally published (as shown by the dates above). Messrs Batsford have also issued a reprint of ENGLISH CHURCH MONUMENTS, by F. H. Crossley (1921), 21s.



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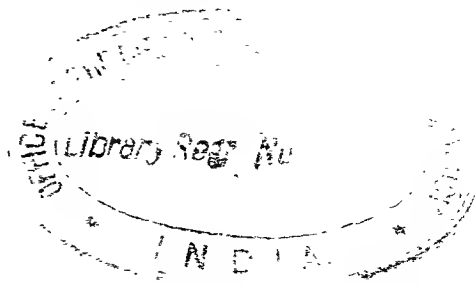
SEPTEMBER 1934

Editorial Notes

A FREE-LANCE journal has many advantages over those which are the organs of learned bodies. One is that, in order to keep going at all, it must be read. The moment it becomes dull it is doomed. That does not mean, fortunately, that we cannot publish occasional articles intended mainly for specialists; they all read *ANTIQUITY*, and have claims to consideration on that ground at least. It means, however, that the Editor must keep his hand on his readers' pulse; and the moment he observes any weakening of interest must find out the cause and eradicate it. This need does not operate upon subsidized publications. (Need we add that there is ample room for both?).



But how to discover where that interest lies? Readers seem, from their letters, to fall into two groups, westerners and easterners (just as in the war). The westerners call for more articles about British archaeology; the easterners retort that for several millennia western Europe was a mere barbaric fringe on the outskirts of a civilization created by the peoples of the east and of the Mediterranean. Our policy is to try and hold the balance between these two groups, giving to each something of what it wants. It is not a case where rigid or final judgments should be made. The interest of the historical



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evolution of one's own homeland has obvious claims (as it has also obvious risks, if over-indulged). When that country has also played an important part upon the stage of general history, that interest may well be allowed fairly full play. But for the same reason the ' heirs of all the ages ' should know something about those ages ; agriculture and urban civilization were created not in western Europe but in the fertile valleys of the east.



But it is by no means easy, having discovered what one wants, to find the man to write the article. For example, we wanted, and still want, an article summarizing what is known of the economy of the Sumerian city-temple. This was a vital organ in the life of the city-state, the earliest urban community in the world's history. Since the majority of clay tablets are business letters and contracts, there should by now have accumulated a fair amount of information on this fundamental matter. Indeed, according to Dr Woolley,* writing itself arose from business needs. So far, however, we have failed to obtain that article. One of the probable reasons is that there are few posts available for the study of cuneiform, and those who hold them are either overworked by routine or mentally incapable of a generalized treatment of their subject ; for we really cannot accept the excuse made by one non-starter that the economics of early Sumeria are still a closed book.



Articles which give one a bird's-eye view of some department of highly specialized knowledge are at once the most difficult to write and to obtain for publication ; for they demand considerable literary powers, a wide range of knowledge, and a breadth of outlook—faculties not often combined in one brain. It is usual to label such articles ' popular ', and that they certainly are ; but the epithet is also used in a disparaging sense—' *merely* popular '. How often have we heard an admirable book thus condemned ! No one would think of finding fault with a small scale map because it did not provide him with a plan of his estate or home-town ; it is not intended to do so. To get this he must buy another sort of map altogether (a cadastral map like the

* Address to the English Association, reported in *Manchester Guardian* and *Morning Post*, 2 June.

EDITORIAL NOTES

6-inch or 25-inch Ordnance Map). It is recognized that different scales are required for different purposes ; and that to describe, say, the half-inch-to-the-mile one as *merely* a small scale map would be absurd. But it is just as absurd to decry a small scale verbal description—always providing of course that it is based upon a large scale knowledge of the subject-matter.



Generally speaking however we have been able to obtain the sort of article we want, even though we may have had to wait years for it. But there are some for which we and our readers are still waiting, as we know from their letters. We have not been able to get a summary of the main features of the Indus civilization, for instance ; nor have we been able to find anyone to describe the characteristics of prehistoric British dogs.



There are whole cultures we have never touched upon—such as are represented by the ruins of Angkor in Cambodia, Anuradhapura in Ceylon, Barabudur in Java ; and except in reviews we have published little or nothing about Stein's Central Asia (as it well may be called), Southern Arabia (the Hadramaut and Yemen), Abyssinia and its phallic megaliths discovered by Father Azais. A note in the present number shows that Nigeria has had a history ; we should not be surprised one day to learn that it was a very long one. East Africa contains much that has never been mentioned in print. What we want is not the notes of a tourist illustrated by bad snapshots, but something that will tell us what was the place in history of the remains in question ; and it must be written from first-hand knowledge.



It was once quite usual for archaeologists to abuse the State for its failure to support their own branch of science. The amount spent upon past records of civilization is still negligible compared with what is spent in destroying civilization itself. We think that Authority still does not realize how rapidly public opinion has moved since the War ; and that it would be supported if it spent more upon science and less

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upon literary curios. Meanwhile it is gratifying that a service of antiquities for the island of Cyprus is likely to be established (*The Times*, 19 July, p. 15) and that prehistoric archaeology is officially recognized in the last award of Civil List pensions (*The Times*, 18 July, p. 8). So far, so good.



One often wonders whether Authority realizes what a good return it gets for its modest outlay—how much work it gets for nothing, how much overtime, how much voluntary enthusiasm. Only those ‘in the know’ can appreciate this and it would be improper for the present writer to enlarge upon it. He has daily evidence of it, however, in his official correspondence and his experience is shared by others of his profession. The standard set by the present generation of archaeologists is admittedly high and lapses from it occur but rarely.



We had hoped to include in the present number a review of Monsieur Poidebard’s splendid book describing the really epoch-making discoveries he has made in Syria by means of air-photography and air reconnaissance. The review has been written but the illustrations that were to accompany it are still not forthcoming. For this failure the publisher of the book is alone responsible.



We have lately issued a letter to some former subscribers who for one reason and another—in most cases an economic one—have (since 1927) felt obliged to discontinue ANTIQUITY. In the letter we expressed the hope, that in view of the more favourable outlook in home affairs, they would now renew their support. We are glad (for their sakes and our’s), to say this has resulted in some renewals, though not so many as we could wish. In one case a subscriber who was unable to attend an archaeological meeting thought that a year’s ANTIQUITY might take its place, and this suggests a hint to others who may, for various reasons, be obliged to forgo some pleasure of the same kind that they can secure a whole year’s antiquarian enjoyment at the cost of a pound note.

Some Ancient Italian Country-Houses

by R. C. CARRINGTON

IT is a matter for surprise that none but the vaguest idea can be gleaned from ancient writers of the appearance or plan of an ordinary farm-house in the ancient world. Cato, Varro, Columella, the Elder Pliny, and Palladius describe with varying degrees of detail the kind of site on which such a house might most suitably be built and the type of rooms required for those who inhabit it. They indicate the uses to which the various portions of the house were put (*villa urbana*, *villa rustica*, *villa fructuaria*) but none of them thought it necessary to describe methodically the lay-out of the house as a whole. Varro mentions incidentally a 'cohors' (cortile or farm-yard) and states that on a large farm it is more convenient to have two such areas, one for the kitchen and tool-sheds, the other for live-stock. Varro's remark is vague enough, but the notices of other writers are even vaguer. The younger Pliny sets out to give a detailed description of his Laurentine villa, but the attempts of modern scholars to reconstruct the plan of the villa from Pliny's description have produced the most varied results and shown the futility of the quest.¹

When the written word fails we turn perforce to the spade. The purpose of this paper is, not to survey or even mention all Italian country-houses that have ever been excavated, but to examine a single group which has been uncovered round the shore of the Bay of Naples. The eruption of Vesuvius in A.D. 79 devastated much of the countryside to the west and south of the volcano. From Portici in the northwest to the lower slopes of Monte Sant'Angelo in the south was a scene of vast desolation and all the country-houses which lay within these limits were involved in the general ruin. Up to the present, about forty of them have been excavated.² They were of various economic types—

¹ Helen H. Tanzer, *The Villas of Pliny the Younger* (Columbia Univ. Press, 1924).

² A list of them, with bibliographical details, is given by Rostovtzeff, *The Social and Economic History of the Roman Empire*, pp. 496-7. Rostovtzeff's list has been slightly enlarged by Day, 'Agriculture in the Life of Pompeii', *Yale Classical Studies*, 1932, III, 165 ff. For convenience of reference, the numbers assigned in Rostovtzeff's list to the villas discussed in this paper are here appended:—No. 1=R.25; no. 2=R.29; no. 3=R.30; no. 4=R.27; no. 5=R.1; no. 6=R.10; no. 7=R.13; no. 8=R.16; no. 9=R.34; no. 10=R.31; no. 11=R.24; no. 12=R.5; no. 13=R.33.

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one was a farm-house, owned by a well-to-do peasant, who lived on it and personally superintended the work of the estate; another was a combination of farm-house and country residence, owned by an absentee landlord who normally lived in the town, visited his villa occasionally for purposes of inspection, and possibly resided in it continuously during the hot summer months; another was a large-scale agricultural factory, built to house a large gang of slaves and managed by a bailiff.³

Though more than forty of them have been uncovered from time to time, various causes have combined to reduce considerably the number of those worthy of study. The excavations have been going on at intervals for more than 150 years, and, partly through the political upheavals which the district of Naples has undergone in that time, partly through failure to realize the importance of publishing results early and adequately, the original reports on the 18th century excavations have been lost and those now available are merely a work of salvage.⁴ At no time, moreover, has it been certain that a villa, once discovered, would be completely excavated. For various reasons (the reluctance of local farmers, the serious handicap of flooding from the river Sarno, and the absence of spectacular finds) an excavation has often been abandoned in its early stages. Or again, the discovery of these villas, which are scattered about the countryside, is quite fortuitous. When, as at Boscoreale in 1895, articles of great intrinsic value are discovered by one land-owner, others are induced to probe their land in the hope of making similar finds and, thus, a momentary fillip is given to this kind of excavation. In general, however, it is haphazard and rarely completed.

The most serious difficulty, however, is presented by our inability to view any longer the remains of the villas: for in nearly every instance they were filled in soon after excavation. The reports, which are thus our sole resource, furnish but meagre information about the materials of which the walls are constructed. At most, all that is forthcoming is a passing reference to the masonry of one or two walls, supplemented, when they occur, by a description of the wall-paintings and their classification under one or other of the well-known Pompeian styles. Obviously wall-painting is not a satisfactory criterion of date, since it may have been renewed in a later style on an old wall. Epigraphy,

³ Rostovtzeff, *op. cit.*, pp. 503-5: Carrington, 'Studies in the Campanian Villae Rusticae', *Journ. Rom. Stud.*, 1931, XXI, 110 ff.

⁴ Ruggiero, *Degli Scavi di Stabia dal 1749 al 1782* (Naples 1881), pls. ix-xix.

SOME ANCIENT ITALIAN COUNTRY-HOUSES

again, is of little help. The inscriptions which have been discovered are not numerous and, being concerned almost entirely with details of farm-administration, throw no light on the history of the houses.

In the preparation of the present study, two requirements have been sought in every villa deemed worthy of consideration, viz : reasonable completeness in its plan and some evidence of date. In view of all the difficulties which have been recounted, it will cause no surprise that, out of forty or more houses that have been discovered, no more than fourteen have been able to satisfy these two criteria. Those that have survived the test, however, range in date from the 3rd century B.C. to the 1st century A.D. and afford enough evidence for a preliminary survey of the houses of the Vesuvian countryside during those centuries.

Our account will fall into three parts. First, it will be convenient to indicate generally the various architectural types that can be distinguished among the houses ; then, the villas of each type will be examined in chronological order ; and finally, an attempt will be made to indicate the relation in which each type stands to the general economic history of the district and also to the general development of Italian country-houses so far as it can be inferred from ancient literature. Hitherto, as far as the writer is aware, no attempt has been made to classify the ancient country-houses of Italy according to their architectural types, and for that reason it is hoped that a preliminary survey of a single group of them will help towards an understanding of the country-house as a whole.

All the villas of which account will be taken belonged in antiquity to the territory of Pompeii and Stabiae. Some are *villae suburbanae*, since they lie almost at the town-gates and were built, not as farm-houses, but as luxurious residences. The rest lie within a radius of two and a half miles of one or the other of the two towns and are either farm-houses (*villae rusticae*) purely and simply or a combination of farm-house and elegant residence. Both kinds indiscriminately are here referred to as ' villas ', since this useful word denotes, at any rate in its Latin significance, any country-house, whatever its economic rôle. This paper is concerned primarily with differences of structural form, not of economic function, and for that reason the latter will be mentioned only when it is found to affect materially the ground-plan of the houses.

The first of these three types (FIG. 1) into which the ground-plans fall can be seen in an almost ideal form in no. 4. In essentials, it is

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composed of a central farm-yard, normally rectangular in shape, round which the rooms of the villa are grouped. Along one, two or three sides of the cortile runs a covered portico. The entrances are in most cases two in number, placed opposite one another in the two longer sides of the farm-yard and markedly nearer to one end than to the other. The quarters of the owner are situated in the small wing which is cut off by the gates.

In the next kind of villa (FIG. II), of which a typical example is shown in no. 8, this more or less symmetrical farm-yard is replaced by a large cortile surrounded by a colonnade (peristyle). Though at first sight this colonnade seems to bear a close resemblance to the portico of type I, it is distinguished by the following features: (a) it extends round all four sides of the central area, not, as in type I, round three sides at most: (b) the entrance to it (normally there is only one) is placed in an obscure corner of the colonnade to allow the greatest privacy to those inside, whereas the entrances of type I are wide and designed to give easy access: (c) as a consequence of this, the axial planning of the entrances and the construction of the residential portion of the house at one end of the cortile do not occur.

The third type of villa (FIG. 4) is an adaptation for the needs of the countryside of the plan of an ordinary town-house of one or other of the kinds prevalent in Pompeii during the last three centuries before the eruption. It consists of an atrium and, in addition, either an external portico of the type of the 'House of Sallust'⁵ or a peristyle.

If we examine in detail the fourteen villas that have satisfied our two criteria, we find that seven belong to the first type, four to the second, and three to the third.⁶

The seven villas of the first type (nos. 1-7) date approximately from the period 200 B.C.-A.D. 79. No. 1 seems to belong to the 2nd century B.C., since the two columns at the east side of the farm-yard (B) as well as two carved sphinxes which adorn the west entrance, are made of the dark grey tufa which is characteristic of Pompeian buildings of this century. Nos. 2 and 4 contain wall-decoration of the second

⁵ ANTIQUITY, June 1933, pp. 137-8 and fig. 1b.

⁶ It would be beyond the scope of this paper to discuss in detail the evidence by which these villas have been dated. Reference may be made to an article by the writer, 'Notes on the Building Materials of Pompeii', in *Journ. Rom. Stud.*, 1933, pp. 125 ff, where justification will be found for the dates assigned in this paper to the various types of construction.

PLATE I



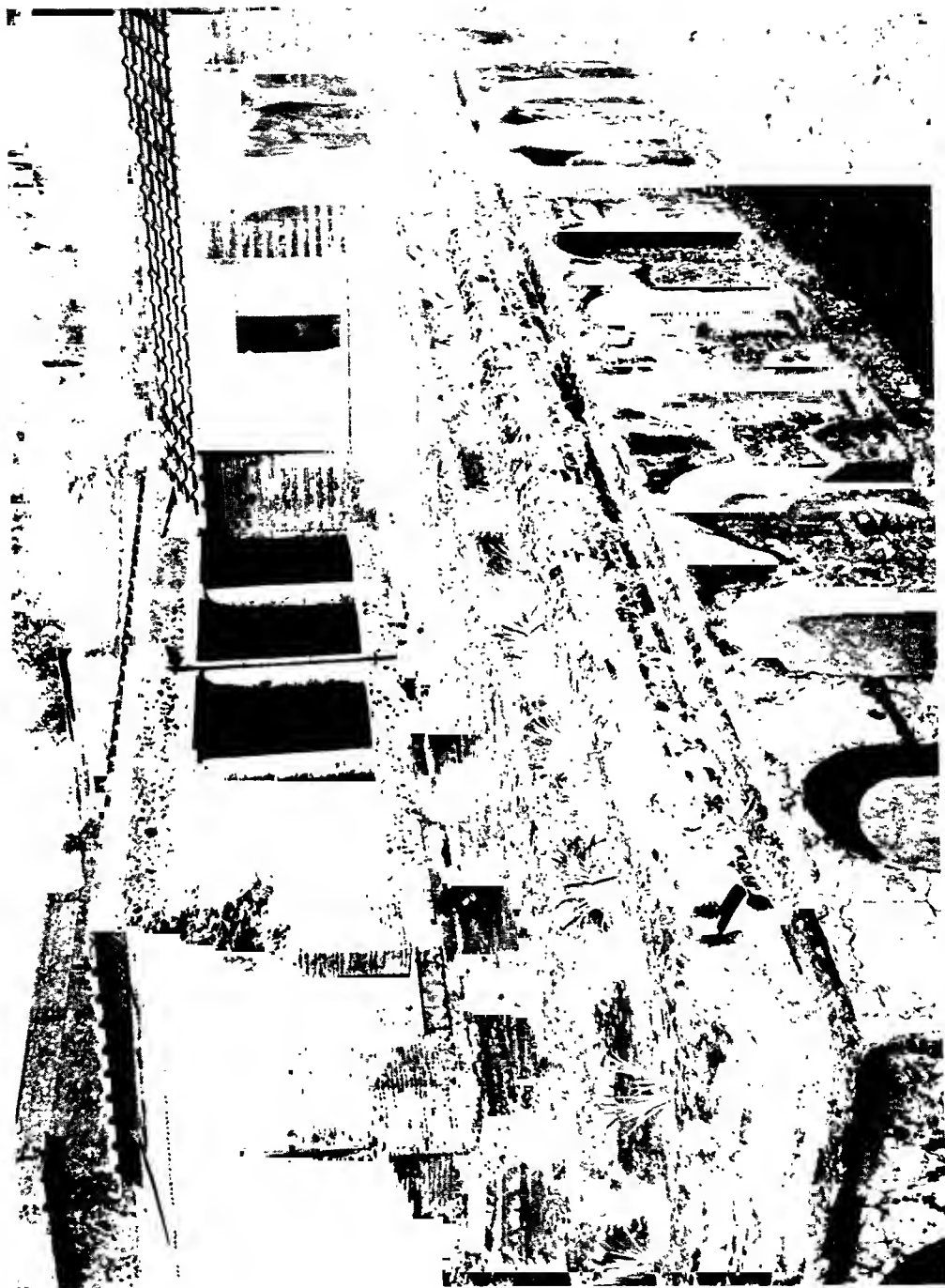
THE 'VILLA OF DIOMEDES', POMPEII, FROM SOUTHWEST. THE FIRST PERISTYLE, WHICH FORMED THE OWNER'S APARTMENT
Plates I-III, *ph.* R. C. Carrington

PLATE II



THE VILLA OF DIOMIDES, POMPEII. THE SECOND PERISTYLE, FROM NORTHEAST

PLATE III



THE 'VILLA OF THE MYSTRIES', POMPEII, FROM SOUTH-WEST
In foreground concrete platform with garden above. Behind, external portico of Period I. The rest belongs to Period IV

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Pompeian style, which was in vogue from the early first-century B.C. to the beginning of the Augustan age and, in the lack of further evidence, we may take the first century B.C. as the lower limit of the period of their erection. The remaining villas (nos. 3, 5-7) may be assigned to the first century A.D., since their columns and pilasters are built of brick-faced concrete and their walls are decorated in a late Pompeian style.

A consideration of the plans will make it clear that a farm-yard, in most cases rectangular in shape, is the central feature of all of them, although in a certain number the original form has been obscured either by the incomplete state of the excavations or by structural alterations made subsequently to the period of erection. Thus the exact dimensions of the farm-yard of no. 3 are not known, as the south side was not uncovered ; but the existing remains suggest that it continued on a rectangular plan. Or again, in no. 2 the portico originally continued round the north side of the farm-yard, but this northern colonnade, together with the adjoining portion of the cortile, was later remodelled and converted, first into a dining-room and finally into a kitchen. Two of the columns of the original portico were incorporated in the later walls and can be distinguished on the plan. Variations in nos. 1 and 7 were due to other causes. In the former, the cortile departs from the rectangular shape on the west side in order to avoid a public road which ran near. In the latter much of the area of the cortile is taken up by a store-room for wine and oil, but it is no longer clear whether this arrangement was part of the original design or (as the plan seems to suggest) a later alteration.

Turning to the entrances, we see that nos. 1, 3, 4 and 6 have each two gateways arranged in the symmetrical manner already described ; the other three have only one. In nos. 2 and 7 this is wide enough for the passage of draught-animals and carts, but too narrow for that purpose in no. 5. A wide gateway was, however, unnecessary in the latter since the west side of the cortile was entirely open. As a final characteristic we may note that in all except no. 1 the rooms used by the owner of the villa formed a compact apartment on that side of the farm-yard which was cut off by the gateways. In nos. 2, 3, and 6, moreover, the branch of the portico which flanks this apartment was so arranged that it could be closed quite easily by shutters and thus kept secluded from the rooms dedicated to the work of the farm and the housing of slaves. In no. 1 the owner's quarter forms a separate apartment on the east side of the cortile with a private doorway into the surrounding fields. Such a special arrangement may have been due to a desire to

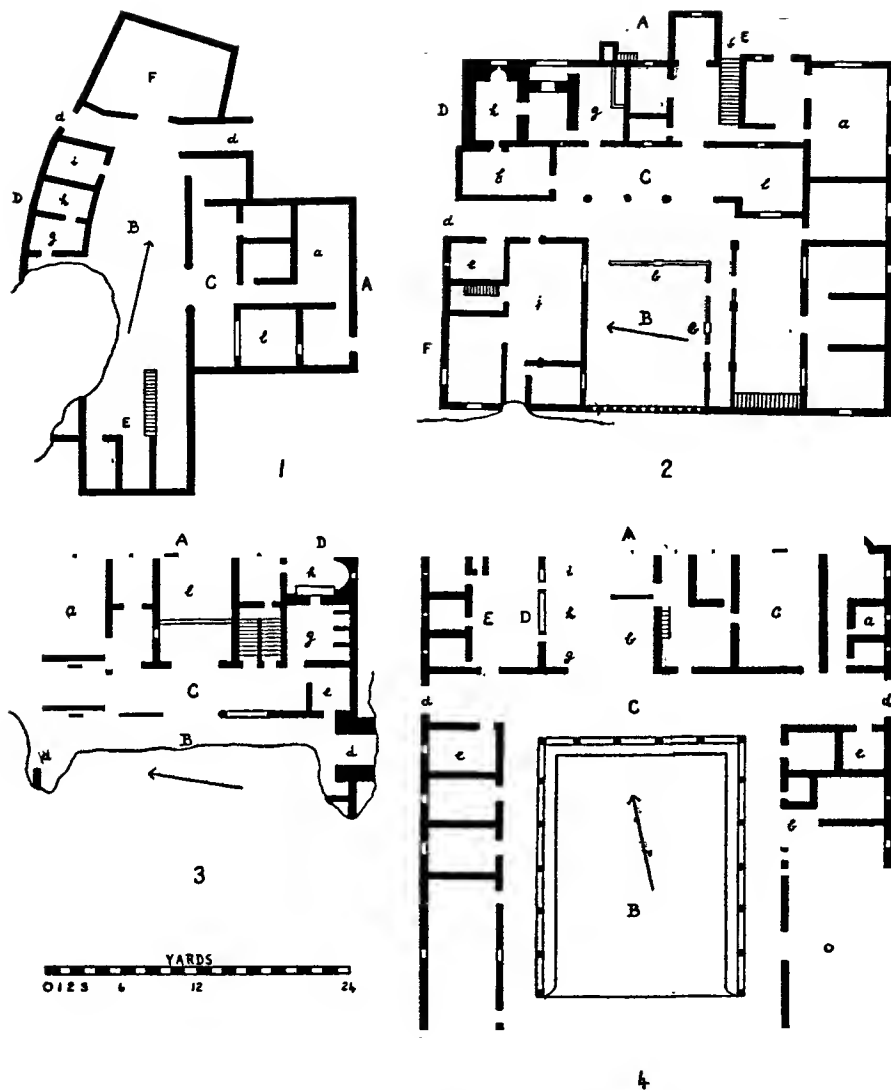
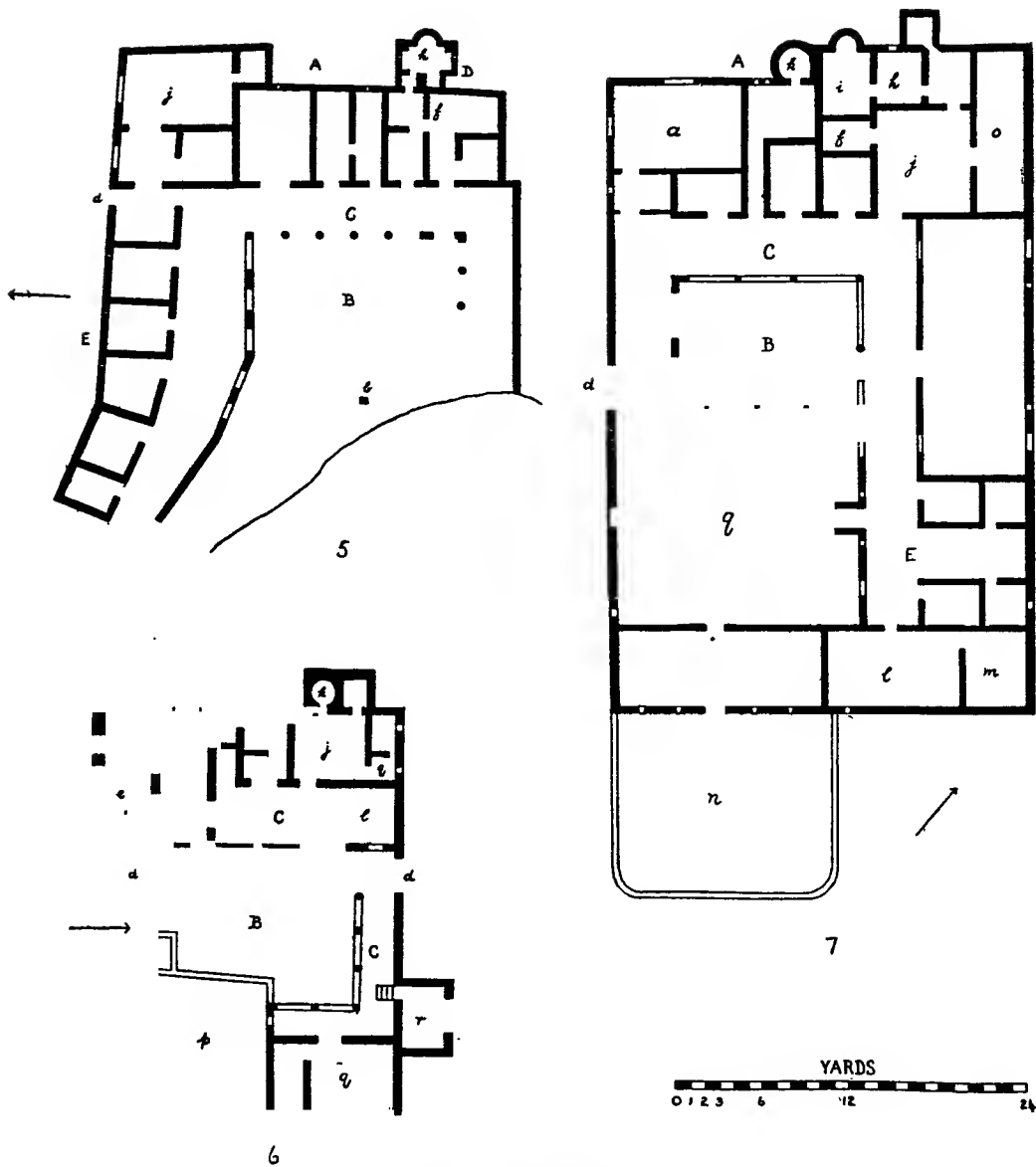


FIG. 1. TYPE I: 'FARM-YARD' VILLAS (NOS. 1-7)

A, Owner's Wing
a, dining room
b, domestic altar
c, reception room

B, Farm-yard
d, entrance
e, doorkeeper's room
C, Portico

D, Bath
f, furnace
g, cold room
h, warm room
i, hot room



TYPE I: 'FARM-YARD' VILLAS (NOS. 1-7)

E, Slave quarters
F, Work rooms
j, kitchen
k, oven

l, wine, or oil-press
m, olive-crusher
n, threshing floor
o, stable

p, sheep pen
q, wine cellar
r, wine shop

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place these rooms as far as possible from the public road which flanked the villa on the west.

Thus despite some variety of detail and adaptation to special circumstances, it is possible to trace a fundamental unity of design throughout these villas. This underlying unity points to the existence of a recognized type of country-house which was consciously followed by the architects of the district. If we may assume the existence of such a type, further significant points emerge. In the first place, seven out of the fourteen villas under consideration belong to this type, and, as far as we can tell from the published plans, this proportion holds good for all the villas of the neighbourhood. Second, this is the only one out of the three types of villa under review which shows no trace of having been influenced by the plan of the town-house. Third, except for the particular case of the 'Villa of the Mysteries', which will call for special consideration later, this type is older than the other two and occurs throughout the whole period for which our evidence lasts. Finally, the type accords well with the vague references of ancient writers to the lay-out of a farm. Thus, the central farm-yard is assumed all through the writings of Varro, while Cato, in his hotch-potch of requirements, insists that there should be two doors, one of large dimensions, the other according to the taste of the builder. Varro enjoins that either the bailiff (*vilicus*) or the doorkeeper (*ostiarius*) should have a room especially prepared for his use near the entrance of the farm-yard, and, in agreement with this injunction, five out of the seven villas have a room or rooms suitably placed for watching the doors and their approaches. For these reasons it seems legitimate to draw the further conclusion that in villas of this first type we see the Italian country-house in its original and purest form—the rustic counterpart of the urban atrium—which maintained its traditional shape through its inherent suitability to the needs of agriculture and the environment of the countryside.

Whence did this type of house originate? Any answer to this question is necessarily speculative, but light is shed on it if we compare the plan of these villas with the atrium of the town-house, as exemplified in the 'House of the Surgeon' at Pompeii.⁷ The latter, like the former, was an unroofed area, surrounded by rooms. The chief living quarters lay at one end of this area (the *tablinum* and its adjoining rooms). Most significant of all, the two rooms, known as *alae*, which were entirely

⁷ ANTIQUITY, June 1933, pp. 136-7 and fig. 1a.

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open on the side facing the central area, occupy precisely the same position in relation to the whole as the lateral doors of the villas. The difficulty of explaining the *alae* merely as rooms has long been recognized. After prolonged study of the houses of Pompeii, Mau stated that 'A careful study of the remains only deepens the impression that at Pompeii the *alae* served no definite purpose, but were a survival from a previous period, in which they responded to different conditions of life'.⁸ May not the explanation be that in origin the *alae* were the doors of a country-house which was adapted for urban use, and that they were closed, when the adaptation took place, because of the difficulty of having lateral entrances in houses that lined a street?

The hypothesis which the writer would put forward is this: country-houses of the first type and town-houses like the 'House of the Surgeon' are parallel developments from a single source; that source is the prehistoric farm-house whose existence has been postulated to explain the origin of the urban atrium;⁹ the farm-house consisted of two parts, (1) a row of huts, serving as the owner's residence, (2) other huts in front of these, devoted to the work of the farm, the whole being grouped so as to form a hollow square, and the division between the owner's wing and the farm-buildings being marked by lateral entrances. In the countryside, this type of farm-house persisted, with many alterations to meet the demands of growing elegance and luxury, and appears in historical times in villas of type I. In the town, it was given a more regular shape, probably by the Etruscans, and its lateral entrances which were now inconvenient were closed, though the memory of them survived in the *alae*.¹⁰

Houses of the second type begin a century later than those of type I, and date either from the first century B.C. or the first century A.D.

⁸ Mau-Kelsey, *Pompeii, Its Life and Art*, 1899, p. 252.

⁹ Patroni, 'L' Origine della Domus', *Rendiconti della Reale Accademia dei Lincei*, 1912, XXI, 260 ff. Cf. *ANTIQUITY*, June 1933, p. 152.

¹⁰ Since this paper was written, Dr Axel Boëthius has published, in the *American Journal of Archaeology*, 1934, XXXVIII, 158 ff, an article entitled, 'Remarks on the Development of Domestic Architecture in Rome'. Amongst other subjects, he reviews carefully and judgmatically the evidence relevant to the early history of the town-house and concludes that there is no clear sign that the atrium was an off-spring of the old Italic huts. His argument depends on negative evidence, *i.e.* on the absence of the vital second link in the chain, huts—farm-house—atrium. The suggestion of the present writer is that the missing link is to be found in the villas of type I. Since, however, surviving examples of these villas date from a time subsequent to the development of the urban atrium, it is essential to the writer's argument to assume that the type itself was much older.

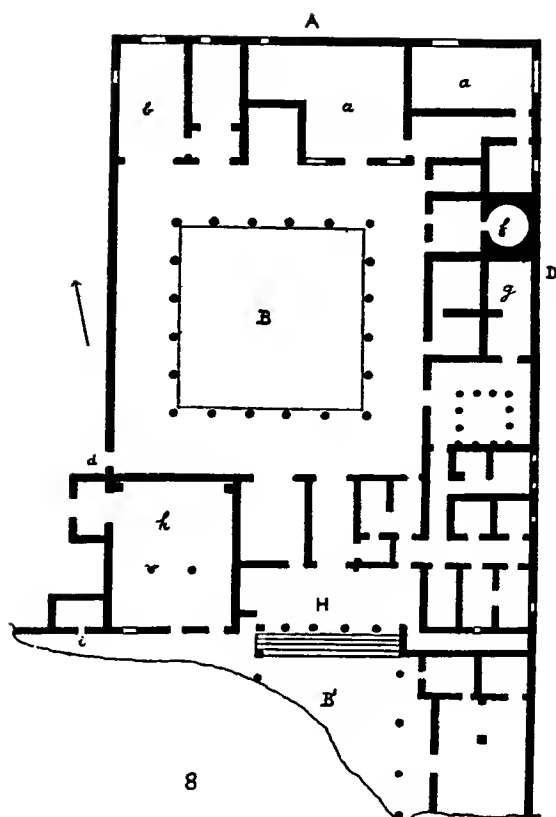
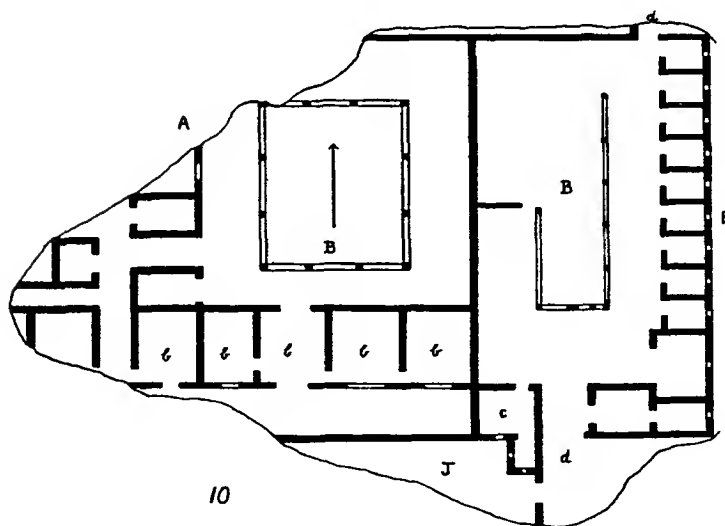
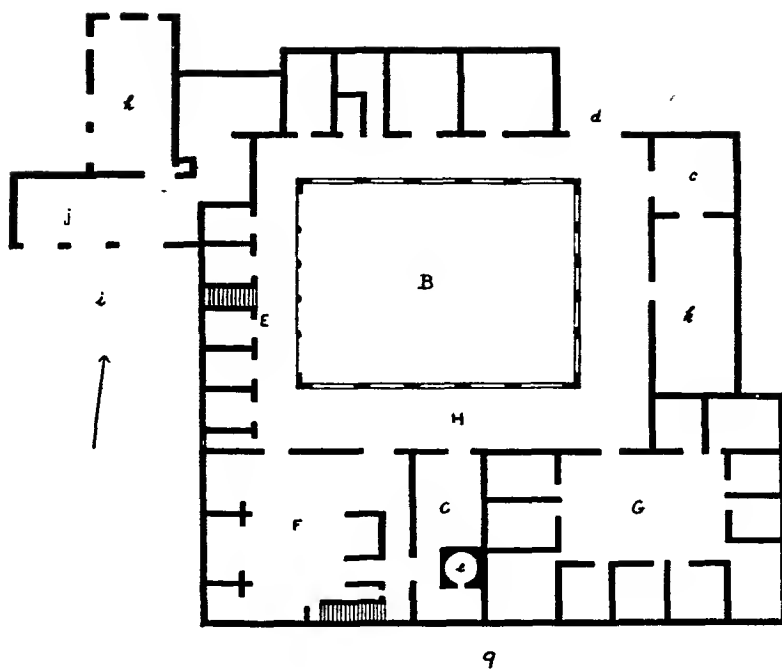


FIG. 2. TYPE II: 'PERISTYLE' VILLAS (nos. 8-10)

- | | |
|-------------------|----------------------|
| A, Owner's Wing | c, doorkeeper's room |
| a, dining room | d, entrance |
| b, reception room | C, Bakehouse |
| B, B', Peristyles | e, oven |



TYPE II: 'PERISTYLE' VILLAS (nos. 8-10)

- | | |
|-------------------|------------------------|
| D, Bath | H, Work rooms |
| f, cold room | h, wine, or oil-press |
| g, warm room | i, wine, or oil-cellar |
| E, Slave quarters | j, wood shed |
| F, Slave prison | k, stable |
| G, Cheese factory | J, Garden |

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The best-known example is the so-called 'Villa of Diomedes' situated in the 'Street of Tombs' to the northwest of Pompeii (PLATES I and II).¹¹ This villa can be dated from details of masonry and wall-decoration to the first half of the first century B.C. For similar reasons no. 8 can be ascribed to the same period, though the brick-faced concrete of the colonnade suggests that its south peristyle (which was only partially excavated) was a reconstruction of the next century. In no. 9 the pilasters and doorposts, being all of brick-faced concrete, suggest a date within the first century A.D. No. 10 contained plentiful wall-decoration of the third style, and, since it appears once to have been the property of Augustus' grandson, Agrippa Posthumus, who died in A.D. 15, belongs at latest to the early years of the present era.

The central feature of them all is a peristyle of the same type as was introduced into the town-house during the second century B.C. (PLATE I).¹² Adjoining this peristyle are unroofed areas, which vary in number, size and shape in different villas. In form the area is either a small cortile (the 'Villa of Diomedes' and no. 9) or a mixture of cortile and peristyle (no. 10), or a (second) complete peristyle (the 'Villa of Diomedes'; PLATE II and no. 8). The means by which the original peristyle expanded, thus, remind us of the remark of Varro, that on a large farm it was convenient to have two 'cohortes', one for the kitchen and tool-sheds, the other for live-stock. Here, however, the purposes were different. The first peristyle of nos. 8 and 10 was occupied by the owner's household, the second by the personnel and implements of the farm. The 'Villa of Diomedes' was a 'villa suburbana', intended purely for residential purposes and devoid of agricultural equipment. The second peristyle (PLATE II) was a cool promenade and had the appearance of a covered, 'all-weather' colonnade of the kind which the Romans called a *cryptoporticus*, since the narrow space between the columns could easily be closed. No. 9 on the other hand, was not a residential villa at all, but a large agricultural factory, run on industrial lines and supervised by a bailiff. Along the west side of the peristyle were rows of cubicles, in which was housed the servile personnel, while the adjoining areas served the purpose of *ergastulum* (slave-prison), bake-house, and cheese-factory. It is

¹¹ Mau-Kelsey, *op. cit.*, pp. 349 ff and fig. 176. A plan of this villa will be found in the stock guide-books to Pompeii, e.g. Engelmann, *New Guide to Pompeii* ed. 2, Leipsig 1931, fig. 62; Maiuri, *Pompei*, Rome, 1931-2, fig. 14.

¹² ANTIQUITY, June 1933, p. 139 and fig. 1c.

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consonant with the industrial nature of this villa that the stout piers of the peristyle were built to carry a second storey—an example of the same vertical development as can be traced in the late Pompeian urban dwelling where it was called forth by the industrialization of the life of the town.¹³

The third type of villa, inspired directly by the Pompeian town-house, survives in three examples (nos. 11, 12 and 13), of which one dates from the third century B.C., the others from the first century A.D. The earliest of the three (FIG. III) is the so-called 'Villa of the Mysteries', situated two hundred yards to the northwest of the Herculaneum Gate at Pompeii. This villa has been almost completely excavated, and not only has it been recently and fully described in Maiuri's masterly publication,¹⁴ but the buildings are on public view and have become one of the most striking sights of the town. The villa was built in the first place purely as a suburban residence and was not used for agricultural purposes until the last few years before the eruption. The structural changes of the building may be summarized as follows:—

(i) Built during the latter half of the 3rd century B.C., the villa in its original form had an atrium as its central feature, round which the rooms were grouped. On three sides the house was surrounded by a portico of the same general type as is found in the town-house of the same period ('House of Sallust'), differing from it, however, in having a fine prospect over the Bay of Naples (PLATE III).

(ii) A peristyle was added to the original atrium during the second half of the second century B.C., and subsequent modifications tended to make the latter rather than the former the real centre of the house.

(iii) Sometime during the period A.D. 14–63, a large rustic quarter was constructed on the side of the peristyle furthest from the atrium.¹⁵ This must have been intended to house a large number of domestics and possibly agricultural labourers, but there is no sign that any portion of the villa itself was at this time used for agricultural purposes.

(iv) Finally, after the earthquake of A.D. 63, a large triclinium to the northeast of the peristyle was converted into a wine-press (*torcularium*) and a large wine-cellar was attached. Thus this portion of the house became a real agricultural establishment.

¹³ *Ibid.*, p. 143 and fig. 2a.

¹⁴ Maiuri, *La Villa dei Misteri* (Libreria dello Stato, Rome, 1931).

¹⁵ Not shown in fig. III.

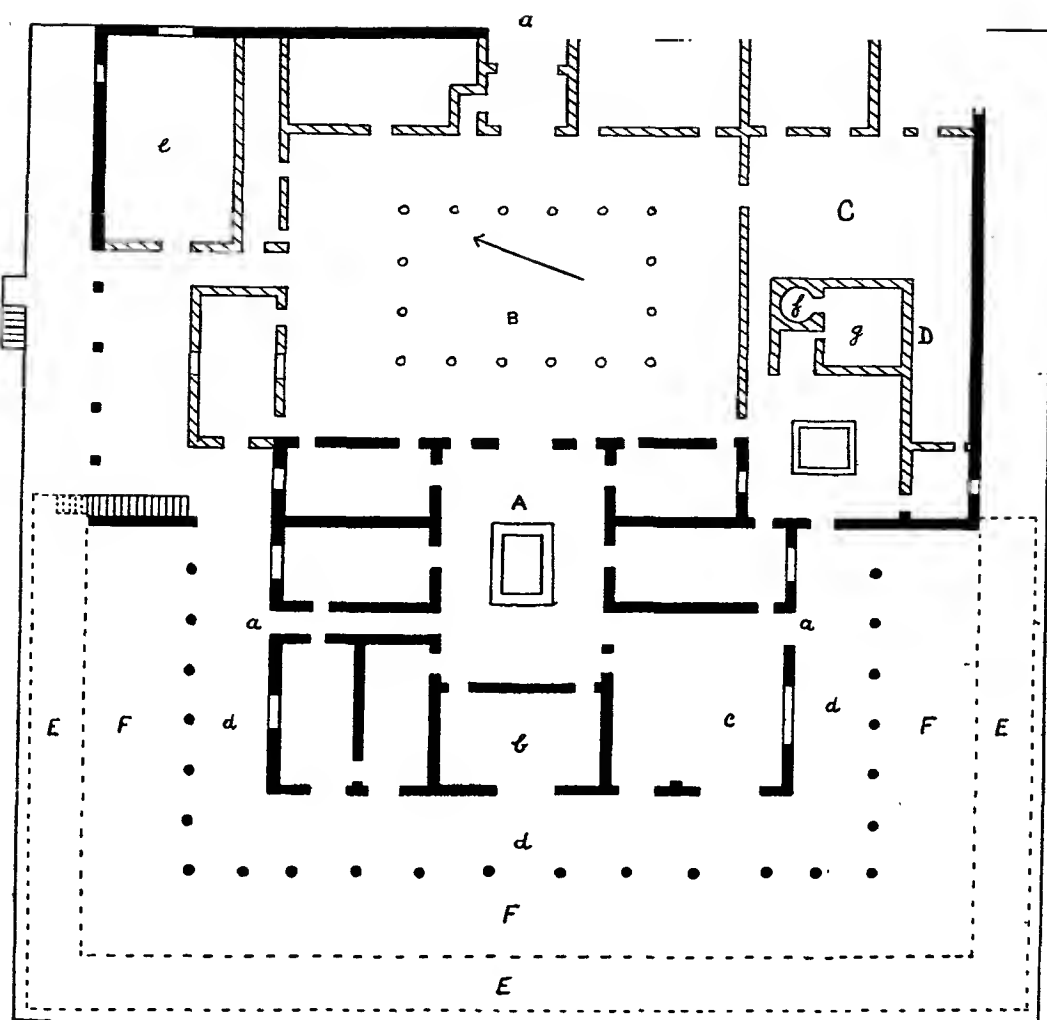
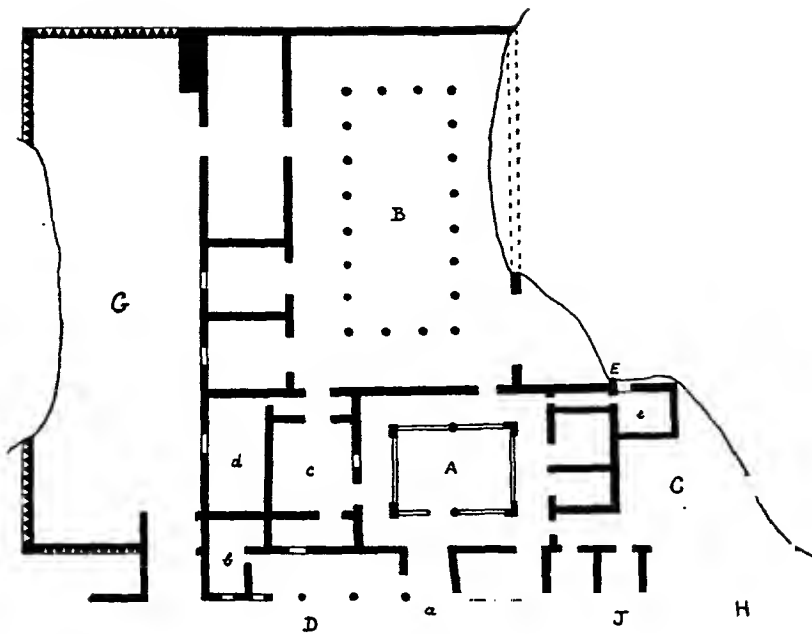
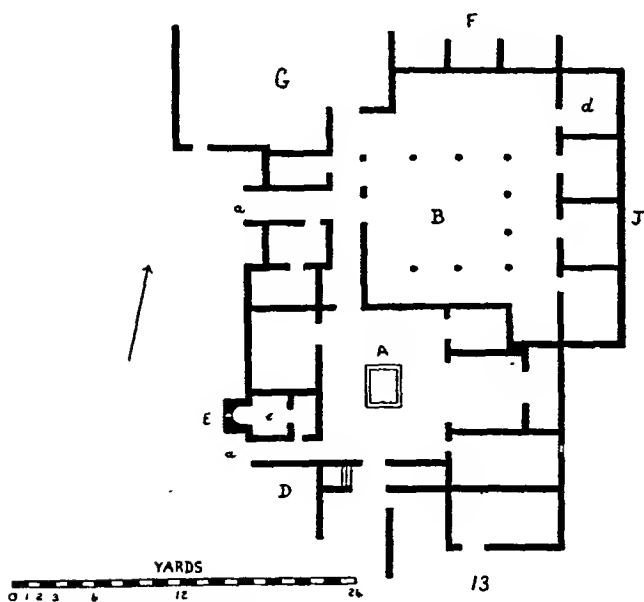


FIG. 3. THE 'VILLA OF THE MYSTERIES', POMPEII (NO. 11). PERIOD I, BLACK; PERIOD II, HATCHED

- | | |
|-------------------|-------------------|
| A, Atrium | C, Cortile |
| a, entrance | D, Bath |
| b, tablinum | f, cold room |
| c, reception room | g, warm room |
| d, portico | E, Cryptoporticus |
| B, Peristyle | F, Garden |
| e, dining room | |



12



13

FIG. 4. TYPE III: 'TOWN-HOUSE' VILLAS (NOS. 12-13)

- | | | |
|----------------------|-----------------|------------------------|
| a, entrance | C, Cortile | f, hot room |
| A, Atrium | d, kitchen | F, Wine, or oil -press |
| b, doorkeeper's room | D, Owner's Wing | G, Wine, or oil-cellar |
| c, dining room | E, Bath | H, Garden |
| B, Peristyle | e, warm room | J, Slave quarters |

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Only the first of these four periods directly concerns the present study. The villa was erected on a colossal platform of concrete (PLATE II), round which, on all the south and on part of the east and west sides, ran a covered corridor (*cryptoporticus*). The external portico overlooked a garden and was approached directly from the atrium by two corridors which here take the place occupied by the *alae* in the town-house.¹⁶ It is uncertain what sort of buildings at this first period occupied the site of the later peristyle, since the foundations have not been examined. The authorities are reluctant to go deeper, through fear of diminishing the value of the site as an attraction for tourists. It is unlikely, however, in view of the subsequent history of the house, that this area served any agricultural purpose.

Turning to the other two villas (FIG. IV), we find that their history is much less complicated. A date during the first century A.D. is suggested by the occurrence of pilasters and columns of brick-faced concrete. A glance at the plans will make it clear that the two houses show a certain similarity in general arrangement, and that the main divisions of the villas stand in roughly the same relation in both of them. No. 13 contains a Tuscan atrium, less regular in the arrangement of its rooms than the town-house. It shows no trace of the traditional *alae* or *tablinum*. The main entrance lies, not, as in the town-house, on its central axis, but in one corner, and is flanked by a small bathing-establishment—a feature which was either entirely lacking in a town house or was placed out of sight of the main door.

The atrium of no. 12, no less irregular than no. 13 in the arrangement of its rooms, reflects in its piers and columns the new developments which the town atrium was undergoing in the last decades before the eruption.¹⁷ A second-storey gallery surrounded the impluvium, supported by stout piers at the corners and intermediate columns on the two longer sides. The area of the impluvium is so large that it resembles a small *cortile*, a feature which can be paralleled in several late Pompeian houses and, at a later date, in the 'House of the Round Temple' at Ostia. The close interaction between the domestic architecture of town and country is nowhere seen more clearly than in this development of the impluvium.

¹⁶ It is significant for the view taken in this paper about the origin of the atrium that, in this instance, when the atrium-plan was used, not in the town but in the suburbs, the *alae* became doorways leading out of the central area.

¹⁷ ANTIQUITY, *loc. cit.*

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Although for the purposes of classification, these three villas have been grouped together, an important distinction ought to be drawn between the 'Villa of the Mysteries' and the other two. The former, as we have seen, was situated close to the walls of Pompeii, and was not in origin designed as a farm-house. In plan it was almost a replica of the urban 'House of Sallust' and such variations as there are can easily be explained by the difference of site. The other two villas, on the contrary, were real farm-houses, situated in the open country. No. 13 lay across the river Sarno, $1\frac{1}{2}$ miles to the southeast of Pompeii, while no. 12 was in the present-day commune of Gragnano, $1\frac{1}{2}$ miles to the east of the ancient Stabiae. Their architects, far from blindly reproducing the urban plan, adapted its traditional form to the needs of a new environment. They evolved a 'rusticised' edition of the town-house, in contrast to the 'Villa of the Mysteries' which is a town-house pure and simple, its suburban situation being merely accidental. This is an important distinction, for it enables us to understand why, after a single example in the third century B.C., there is a gap of two centuries before villas of the third type occur again. The Samnite highlanders, who invaded the plain of Campania at the end of the fourth century B.C., quickly settled down, absorbed the Hellenistic culture of which Naples was a strong centre, and became a local aristocracy. Their position at Pompeii is well-attested and it is amongst their number that the builders of the palatial residences of the third and second centuries B.C. are to be sought. If we assume the first owner of the 'Villa of the Mysteries' to have been a member of this conquering aristocracy, the combination of wealth and culture which is seen in the villa is readily comprehensible. We cannot conclude, however, that such a house was a regular feature of Italian suburbs at this early date. It is unbelievable that a similar dwelling could be paralleled at the time even on the outskirts of Rome itself. The 'Villa of the Mysteries' is a flash in the pan. In general, the third type of villa belongs to a late period in the development of the country-house.

From the chronological details which have been given, the history of the various types may be summarized as follows :—

<i>Date</i>					<i>Types</i>
3rd century B.C.	—	—	—	—	III
2nd " "	—	—	—	—	I
1st " "	—	—	—	—	I, II
1st " A.D.	—	—	—	—	I, II, III

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It is obvious that any conclusions which we attempt to draw from the results summarized in this table will be based to some extent on negative evidence, *i.e.* on the non-occurrence of a given type of villa in a given century. Such non-occurrence may be purely accidental. This defect, however, will be partially discounted, if the conclusions which we draw are not only mutually coherent but also in harmony with the external evidence of literature. When the evidence is so scanty, reasonable coherence is all that can be expected.

If then we pass over as a 'flash in the pan' the single villa of type III which occurs in the 3rd century, the remainder present us with a simple and continuous development. Starting with type I in the 2nd century B.C., type II appears alongside it a century later, and type III alongside both of them in the 1st century A.D. A question immediately arises. If, as has been suggested, the first type represents the traditional pattern of a country-house, still uninfluenced by urban developments, why is it not found earlier than the 2nd century B.C.? An answer may be sought in the general history of the district. We gather from Livy that, at the end of the 3rd century B.C., the region of Vesuvius was the scene of considerable warfare between the armies of Hannibal and of Rome.¹⁸ Pompeii's neighbour, Nuceria, suffered in a special degree at Hannibal's hands, and Pompeii, which remained faithful to Rome, cannot have been unscathed. Though the city itself had been newly fortified for the occasion,¹⁹ an easy prey was offered by the outlying farms, whence the inhabitants must have fled on the approach of the hostile army. The absence of buildings in the countryside earlier than the time of Hannibal may be due simply to the destruction wrought by the invader. On the other hand, the 'Villa of the Mysteries' escaped destruction, lying close to the town-walls and being constructed on a solid platform which could not lightly be destroyed. In this fertile district, however, the damage done by Hannibal cannot have remained long unrepaired. Villas sprang up in the next century to replace those which he destroyed, and of these at least one has been discovered.

If we assume that no. 1 was not an isolated example of villas of type I in this century and that the type as a whole may be considered typical of the period, a comparison is invited with the writings of Cato (234-147 B.C.), whose treatise, *De Agri Cultura*, reflects the state of Italian

¹⁸ XXIII, *passim*, esp. ch. 15.

¹⁹ ANTIQUITY, March 1932, p. 7, fig. 1, period III.

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agriculture during the first half of the 2nd century. Unfortunately, except for his remark about the number and dimensions of the doors, Cato says nothing about the plan of a farm-house. He does however give some indication of the size of the estate attached to it, and although he does not quote general statistics, he incidentally refers to farms of 100 (twice), 120, and 240 jugera.²⁰ These figures agree well with the evidence of the villas. In no. 7 the wine and oil vats have been preserved intact, and it has proved possible to form a rough estimate of the amount of produce which was grown each year and hence of the probable size of the estate.²¹ The land attached to this villa seems to have been about 100 jugera in extent. A comparison of the storage-room of other villas with that of no. 7 suggests that 100 jugera represented an average acreage, though the smallest estate can only have been half this size and the largest may have been double. These figures thus accord well with those of Cato.

Varro,²² writing at the end of the republican age, makes one of the personages who appear in his treatise lament a tendency which had grown up in his day to attach more importance to the residential than to the agricultural portion of the country-house. He contrasts the luxury of the moderns, whose only care is to have 'villam urbanam quam maximam ac politissimam', with the simplicity of the ancients whose first thought was how to develop an efficient agriculture. This tendency is reflected in the villas of type II, which appear for the first time during Varro's lifetime. The owners of such villas as nos. 8 and 10 were really townsfolk who used them for summer residences and left the management of the estates in the hands of bailiffs. Hence it was not unnatural, when the tendency towards luxury began, that they should transfer the peristyle into the country—the newest and most luxurious feature that the town-house then possessed. The vague resemblance of the peristyle to the rustic cortile may have suggested its suitability for a country-house and may explain why the peristyle was taken over before the atrium. Once acclimatized, however, it quickly showed its suitability for agricultural purposes and in the next century is found housing an agricultural factory, a purely industrial building with no trace whatever of a residential apartment.

The peace established by Augustus throughout Italy, which freed

²⁰ *De Agri Cultura*, chs. 1, 3, 10 and 11.

²¹ Day, in *Yale Classical Studies*, 1932, III, 165 ff.

²² II, 13, 6.

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the countryside from the terror of brigandage and civil war, led to a growing desire on the part of the townsman to possess in his country villa all the amenities of a city dwelling. Such a desire, which is reflected in several of the poems of Horace, led in the region of Vesuvius to further influence of the town upon the country. The last architectural feature to be transferred was the atrium itself, the time-honoured centre of the urban dwelling, whose plan it had dominated for centuries. When taken into the country, however, the atrium lost several of its traditional features (*e.g.* *alae*, *tablinum*) and in general assumed a freer style in harmony with its new surroundings. Thus, if the hypothesis put forward on an earlier page is well founded, the atrium, after originating in the country and being imported into the town, and after enjoying several centuries of urban life, was transplanted back into the country, when its rustic origin was already forgotten, and, in the process, assumed something of the irregularity which had characterized it in prehistoric days. The buildings devoted to the work of the farm now grew up round the nucleus formed by the peristyle and atrium. These buildings, being capable of indefinite extension, opened the way for a conglomeration of apartments of the kind found in Pliny's Laurentine villa : for, though the precise plan of that villa is uncertain, an atrium seems certainly to have been an important feature of it, round the atrium being grouped the *cavaedium*, *triclinia*, *turris*, *sphaeristerium* and other rooms, whose exact shapes have taxed the ingenuity of modern students. Such grandiose developments helped to make the elegant townsman feel that among them he had a town's amenities in miniature, and, as such, formed a natural development of the Campanian villa of type III. In their architectural forms, however, they were the outcome of a taste which was cosmopolitan rather than Italian and, for that reason, are beyond the scope of the present study.

Santa Orosia : a Thaumaturgic Saint

by VIOLET ALFORD

WINDY Jaca, up on its terrace, its back to the snowy Colorado, is especially connected with that disastrous forerunner of the Spanish revolution, which coming to premature birth ended in premature death. We may see there the Street of the Martyrs, re-named by a Republic, born after all without bloodshed, in memory of its first blood sacrifice. Yet in spite of its rather red modernity, little Jaca still cherishes rags and tatters of tradition, and up there on its chilly height a local thaumaturgical goddess holds as much sway as she would in Andalusia. On the 25th of June the town celebrates its feast in honour of Santa Orosia. That is the moment to see the old Jaca behaving as it did before its seventeen towers came down, and its encircling walls were laid flat.

Santa Orosia was, when her head was on her shoulders, a Czech—probably Moravian, since Moravia is famous for its zeal—missionary lady. She came to the Aragon wilds some time in the eighth century, seeking to convert—I was about to write ‘the people of Aragon’. But here begins the dark confusion of the tale. For the people of Aragon had long since nominally embraced Christianity—did not St. James evangelize Spain, crowning his work at famous Santiago de Compostella? In fact the Tarraconense province, which included Aragon, was converted as early as the middle of the third century, while by the fourth the Church was so well established that we read of twelve bishops figuring at the Council of Elvira. Had the missionary lady, in far-off Moravia, heard of the Moorish infidels, and taken her long journey to devote herself to these terrors of Europe, just as their northern tide was at the flood? The scene of her story was never under Moorish domination however, for the Reconquista began on the heights of Jaca at the same time as on the almost untouched Cantabrian coast, that is to say with the appearance of the first Moor. And it was organized by the same race, for Jaca was once Iacca, its early Counts were Aznars, unmistakable signs, together with a thousand Euskarian place-names—Benabarre, Lagunarrota, Belarra, Ibars—of the Basque people. This Euskarian influence stretches from Catalonia to the Asturias, and on

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both sides of the chain, and this is one reason to suppose the missionary lady, did after all, find work ; for the Basques were renowned laggards in the faith, as they are famous traditionalists today. Officially they may have been evangelized, but in all likelihood it took more than St. James and the twelve bishops to break down their old religion. Their brothers round Bayonne were the very last of the Novempopulanae to accept the Cross, and that not before they had chopped off the head of Saint Léon as late as the tenth century. So it is not surprising to read Hergbaldus, who about 600 A.D. writes 'the Vascons were given to adoring demons',¹ nor to find that even into the eleventh century the decapitation of Sainte Foi d'Agen was remembered against 'Tota Basconn' et Aragons'.² I am therefore quite ready to believe that if the Lady Orosia ever came interfering with Basque moon-gods and such like, their devotees put her out of the way as they had many another. But the legend distinctly says she was done to death by Moors. These sons of the Prophet chased her up the mountain behind Yebra de Basa, seeking to violate her virginity—another tale says she was on her way to marry a prince—but contented themselves with killing her on the top. Then occurred the supernatural direction of a shepherd, an integral part of most stories of miracle-working madonnas and saints. This one was guided to where the body lay, its severed head some distance away. Unflinching he found that too, and carrying out heaven-sent orders, took the body to Jaca, retaining the head at his own village of Yebra. There they are to this day. And on the 25th of June the bishop of the diocese comes up with his chaplains, in a train with about six hundred people where there are seats for three hundred, and amongst them are the *endemniados*, coming to be dispossessed of their devils by the wonder-working saint. They go to the body to be cured if they live on the west of the Gallego river, to the head if to the east. And pilgrims and parish crosses follow the same rule.

About 4 o'clock in the afternoon the *Romeria* arrives, some walking as much as 37 kilometres and more. They are met by the ceremonial dancers of Jaca, who perform their *Paleotada*, a stick dance, before them into the town. A poor and dirty little *Romeria* it is. The pilgrims wear the same ancient cloaks their fathers wore before them. Unspeakable hats, spotted with grease and weather, hang down their backs, heavy staves are in their hands, marked with a double cross. The

¹ P. S. Ormond, *The Basques and their Country* (Simpkin, Marshall, 1926).

² Rodney Gallop, *A Book of the Basques* (Macmillan, 1930).

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dancers make a fine contrast. They wear the gala dress of Alto Aragon, white under-breeches puffing below slit up top-breeches. Their white 'morris' shirts are bedecked with scarves, their musician marches ahead, thwacking his long, wooden, stringed drum, piping his three-holed pipe. These somewhat archaic instruments are used on both sides of the Pyrenees, notably in the Val d'Ossau and in the Basque Soule. Here, on this southern slope, the drum is known as the *chicotén*. An old, heavy, iron key is used for tuning the six strings, while the pipe shows a covering of snake skin which prevents the joints parting. Some enterprising hand has carved upon it Año 1402. This year modernism overrode traditionalism, and the dancers refused to come out. Their musician, terribly disappointed at losing his yearly moment of glory, went off on foot to join the musician of the head, at Yebra. Their defaulting might have been simple reluctance to appear in an ecclesiastical procession, not knowing whether Madrid had sanctioned it or no. For the Republic has forbidden all church processions, and up to the last minute we did not know what would happen next morning. But the town was determined to keep its feast in spite of mandates from Madrid. When darkness fell the band of the regiment at Jaca paraded the streets accompanied by the *Cabezudos*. These 'great heads' of papier mâché, running terrifyingly before, represent red-nosed men, comic old women, and of course, Moors. They are so Spanish in taste that they need to be seen, and then they are seldom appreciated—witness the puzzled reception of Falla's 'Puppet Show' when, in the Paris Opéra, Don Quixote, in contradistinction to the life-sized puppets, was actually represented as a *Cabezudo*.³ When the military had played themselves home, the *ronda de la villa* began. A bough-bedecked lorry carrying guitarists and the singer made its rounds, stopping under the windows of the mayor and other notables, including those of the foreign visitors. It will be difficult to forget the sudden burst of guitar music which set vibrating the chill air of 2 o'clock in the morning, and the rise of the tight tenor voice, forcing out the complications of a Jota. For these are what he sang, improvising verses suitable to those he serenaded, the guitars, with extraordinary gusto, ushering in each verse with a few stereotyped bars. Peeping between the blind slats one could see the musicians, white clad, sitting amongst the greenery of their moving platform. And even at that hour a small crowd gathered to listen.

³ J. B. Trend, *Manuel de Falla and Spanish Music* (Knopf, New York, 1929).

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A few years ago the *endemniados* spent the night in vigil in the Cathedral. One can imagine, having seen samples of these unfortunates, what scenes must have been thus engendered, and presently modernism did, to some extent, exert itself, and the vigil has been suppressed. One sees them first issuing from the Cathedral on the morning of the great day, and a sorry sight it is. In a tight bunch of neurotic misery they creep, bent double, beneath the frame on which the reliquary is carried. A memory of poor, tortured faces and of a pallid, epileptic looking little boy, remains. To set against these is a picture of the parochial crosses, carried by the queerest old rustics of sacristans imaginable. And not only carried, but fought with, for quarrels break out, and in honour of his parish bearers are only too pleased to use them as battle-poles. An odd fighting company they are. Some wear the dress of the region, displaying under a ragged cassock the puffing breeches; nearly all march in *alpargatas*, the coloured ties stretched in handfals so it seems, from toe-piece to heel-piece, whence they rise, cross-gartered, up the leg. Some make their pilgrimage in leather *abarcas*, a primitive footgear probably descended from Iberian costume. They consist of a leather sole, a small toe-piece attached by metal links, and instead of ties, leather thongs wind up the leg over handknitted white socks, *pedaletas*; another link connects the heel with the thong.

The procession stops from time to time to allow a countryman to reach up and touch the reliquary with his hat, or for a child to be lifted to kiss it. The bearers are as obliging as those of the Seville Pasos, when the humblest may command a halt while they sing a Saeta to their favourite Virgin. At last, however, it reaches the open space on which has been built the horrible modern *Templete*. Santa Orosia, the bishop and clergy, all mount to the balcony under which the crowd surges, not to view their saint, it seemed to me, but to stare at what the miracle seekers might do. Two priests opened the reliquary; with well-timed movements like waiters folding tablecloths, they lifted out covering after covering. These are of velvet or brocade, lavishly embroidered by devotees, and as the pile increased a few faint whimpers came from down below. This is what the crowd had been waiting for. 'Ahora', they said. 'Principian, they are beginning'. When the tenth brocade was lifted one voice had gained the ascendancy. A long, thin wail arose. 'Ai, ai, Santa Orosia'! When the fifteenth was displayed—'Santa Orosia! Santa Orosia —a—a—a!' a series of staccato screams, forced out in the most determinedly hysterical fashion

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imaginable. The owner of the voice seemed to be urging herself on. 'Now it's time to begin. Now I will make her (and them) pay attention to me'. At the twentieth brocade horrible screams were echoing against the Temple, at the twenty-fifth the crowd was surging forward to get a look at the annual miracle. '*Insultos*', said they with satisfaction, for now the voice was hurling foul epithets at the saint whose help was sought. At the thirtieth brocade the whole place was ringing with hysterical shrieks; children had burst into frightened wails of their own, the pilgrims, who order the procession, were fighting to keep a space about the miracle recipient. 'She is tearing off her clothes' said the crowd with complacency.

Then came the last brocade, and the bishop stepped to the front. 'Kneel, please kneel', whispered a friendly girl, fearful lest the foreigner should be guilty of irreverence. But while the heretic duly knelt, the vast majority stood upon its feet, with all the demeanour of a cinema crowd, coolly gazing at the object held aloft by the bishop. What was it up there, stiffly advanced, motionless under the scorching sun? A mummified cat would perhaps describe its general appearance, bound about with ancient ribbons, slung with medals, brown, dessicated, repulsive in the extreme. And as the immovable exposure continued, more hateful every minute, another adjective may be added—preposterous. No wonder the Republic, seeking to educate the people, finds itself at every turn at variance with the Church. And since the last elections, who will dare continue the education?

The voice rose to piercing heights. 'Santa Orosia! Santa Orosia! Santa Orosia!' as automatically as a metronome, and thus went on until the guardians held the perpetrator writhing on the ground. This miserable woman had shrieked for twenty minutes from first to last, and the cinema crowd, wearying of the picture, began conversations, laughed, spat, and pushed, before the poor little remains of whatever it was up there, were reburied beneath the hundred brocades.

High on the mountain next day another wind was blowing. Yebra keeps the feast on the 25th on the plateau above, and on the 26th in the village. Fresh air and an arduous climb put a different complexion on the proceedings. The parish priest steps out courageously, the small reliquary containing the head of the saint, borne by mountain stalwarts. A separate confraternity from that of Jaca comes in, parish crosses are not missing, but above all the dancers decorate the procession. Very early they all string out into single file on the winding

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path, and begin the long, rough climb to the Sanctuary. The dancers are spotlessly clean in their regional costume, over which are worn the sashes, ribbons, the scarves and bells which turn them into members of the great European ritual brotherhood. Their hats have tall sprays of flowers, the leader flashes a mirror on his, while a cloud of ribbons floats down his back—a costume recalling both Basque *Volantak*, dancing in the snow, and Bampton Morris processing down the Oxford highroad. The bell-pads upon the Yebra legs are of the same pattern as those on Yorkshire, Czech, Basque or Catalan legs, their feet are in *alpargatas* of the Aragonese style. They hold a stick in either hand, before them marches their musician, with his stringed drum and three-holed pipe. With him went, last time, his dethroned brother of Jaca. But I fancy he was not allowed to play. Where the pathway is broad enough they dance, but more often a single file is all they can manage, until they all fan out on the great upland which is their goal. There at the Sanctuary Señor Cura opens the reliquary, and displays the sometime head. The *Romeria* stays up there all day, to eat and drink, to sing and dance. Girls spread clean napkins on the turf, out come wine-bottles and leathern wine-sacks, from which the men pour red jets down their parched throats. If banner or cross bearers have a private difference, here is plenty of room to fight it out, flag-poles and crosses clashing like the croziers of the old fighting bishops. But it is all good fun, which, when they have let a little blood, ends in refreshments. The ritual dancers get lost in the crowd, where casting off their hierophancy, they make love, sing Jotas, and with difficulty are collected to process downwards.

Before they leave the plateau silent and bare for another long year, we must examine the little Sanctuario. It is a tiny chapel, roughly built of stones. Under the peak of the roof is a niche for a figure of the saint. At the back grows a sacred blackberry, forever green. The chapel is raised on a great boulder cropping out of the turf, and on the boulder are two cup-shaped depressions, almost side by side. These are the *arrodillas*, the knee-marks of the shepherd who found the decapitated body. Here he knelt while receiving instructions as to what he was to do with it. And here, if anywhere, we find an indication as to what may be the foundation of the whole affair.

It is evident that a female deity, whose shrines were rocks, stones, and stony mountain tops, was honoured all along the chain, on both sides. The French Aude, Ariège, Bigorre and Béarn are full of sacred stones and stone legends. The Basque provinces teem with Virgins

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of the Rock, and Ladies of the Cavern, now confused with modern witches. In the Vallée d'Aspe, up which the Roman, and far older than Roman, road ran through Iacca from Gaul to Spain, is a stone visited by barren women. In the same valley pilgrimages are made to the black Virgin of Sarrance, a nearly formless stone, to which a head and a hand have been lately added. She was discovered by a yoke of oxen. The beasts persisted in kneeling in the river, do what their driver would. On investigating, the astonished man descried the black Virgin under the water. It is supposed that the stone really is a pre-Christian image, perhaps the female deity now under discussion, thrown long ages since into the Gave, by zealous missionaries or their converts. Or again, not so many ages ago, by some scandalized curé. A most remarkable example of continuity of ritual is, or was, the Shrove Tuesday procession of young men round the great *Cailhou* of Arribapardin, in the Luchon district. They lit a fire on the 'Pebble', and in single file danced round it in such attitude and undress that 'la fête blesse trop la décence pour être décrite dans tous les détails'. These stones, so obviously devoted to an ancient fertility-cult, are situated exactly back to back with the mountain of Santa Orosia's knee-marked boulder. So it is not drawing too long a bow to deduce a cult, here also, dedicated to a thaumaturgic Lady of the Rock, herself a Pyrenean descendant of the great earth-mother, who was not only enshrined in, but symbolized by, stones, rocks, cones and pillars. The knee-marks may be natural, but are also quite likely to be man, or rather woman-made depressions to hold offerings to the giver of fecundity. Offerings are still laid on rocks, or under cromlechs, in many countries which have not even yet forgotten. The insults and threats by the 'possessed' are quite in order. Threatening the giver of plenty is one way of obtaining your wish. Sir James Frazer tells of a Japanese godling who withheld rain. His people just hurled him into a ricefield, to lie under the brazen sun till he came to his senses and did his duty. Nor need one go to Japan to witness human desires opposed to the dumbness of a divinity. The fishermen of Lequeitio beat their statue of Saint Peter and cast him into the sea, while the people of Nestier with menaces threw their saint into the Garonne, thereby impressing their need of fish and rain upon contumacious givers of these commodities. It seems probable that the Virgin of the Pillar, the great Patroness of Zaragoza, superseded an earth-mother, symbolized by a pillar. The Virgin came up out of the earth already on her pillar, and has been venerated *desde tiempo inmemorial*, and from time immemorial also

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milagros estupendos have occurred there. The confusion between witches and Ladies of the Rock is particularly apposite, for if witches inherited from the great mother's priestesses, their pitiful survivors of today inherit likewise, and what looks like confusion, is in reality a direct connexion. Even the evergreen blackberry is in its proper place. Bushes near sacred stones become imbued with sanctity themselves. The next day, down in the village, the fiesta continues. The *Romeros* and parish crosses go home early, so the villagers have it all to themselves except for two inquisitive *Inglesas*, who are welcomed with all the gracious hospitality of the Spaniard, and even blessed by the oldest inhabitant, clad in full, though excessively dirty, Aragon costume, and shod with Iberian *abarcas*. The 'young men's mass' had not finished when the *ronda de la villa*, twanging sonorous guitars, came to the church porch. They consist of *bandurrias*—the metal stringed treble guitar—guitars, untraditional violins, and the singer. This last is a youth, who sings Jotas, improvises verses suitable to the house outside which he performs, and who forces out a tenor voice in true Jota style, making a sympathetic throat ache. When the priest and the mayor had had their *albada*, the company went to the tiny school, the girls of the village were fetched, and a public 'ball' began. It was enlivened with much red wine, a great deal of dust was stirred—not, alas, by Jotas, but by soul-deadening two-steps. But for the stick dancers' ribbons one might have been at Balham—or Berlin. A deathlike silence fell upon little Yebra when the scuffling ceased.

It was not till late afternoon that the results of whole roast sucking lambs, *migas* and red wine, allowed the feasters to re-appear. Then tinkling bells and fluttering ribbons called to the tiny plaza managed on the top of an outcrop of rock. This is the only flat, or flattish place in the village. Here the stick dancers danced, till long shadows danced with them, and everyone came out to hear the *pastorada*. The leader, the *Mayoral*, called after the chief of the sheep breeding and pasturing communal arrangements, and the *Rabadan*, the chief shepherd, stand at either end of the face-to-face files. The Mayoral 'dedicates' each figure to some village personage, seizing the occasion to sharpen his wits upon his subject. His dancers say proudly 'He do serve we out', but no one takes it amiss. For a brief space the Mayoral, often, like so many folk leaderships in inherited office, is the king, critic and judge of his village. He may say what he chooses. Meanwhile the little Rabadan, aged eight, runs after the girls, clubs the dancers into position, and generally behaves like an English Morris Fool, while the musician,

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burdened by his immense stringed drum (in this village called the *salterio*) prefers to sit piping, the drum resting on the ground.

The dance has many figures, each beginning with an 'up-the-middle' in pairs, and a 'cast-off' at the top. The figures are merely varieties in the manner of tapping sticks ; each is named ; La Procession Cruzada, La Niña, and other much ruder appellations. When the midsummer sun at last sets, the *pastorada* proper begins, eagerly looked forward to for months, a review of village happenings during the year. The little Rabadan 'speaks his piece' faultlessly, under his family's admiring gaze, and the Mayoral steps forward, mirror flashing, flourishing his be-ribboned staff. Beginning with a set opening, like a Jota song, he is soon improvising verse, relating the ups and downs of the wool trade, the rigours of the lambing season, for although he is but a mock Mayoral, sheep are the riches and life of the community. Village scandals, out-of-the-way happenings—and how few they are—returns or departures of fortune-seeking *Americanos*—nothing is forgotten. Finally the most important subject of all is recited, the behaviour of the weather. In one *pastorada* I know this is of such intense interest, that on the first day of the fiesta the Mayoral comments on the weather from October to March, the feast falling in October, ending his detailed remarks with

Mañana, Dios mediante,
Esplicaré el otro tiempo.

and the following day explains March to October. In many places each dancer says a *dicho*, the whole thing then becoming extraordinarily like the mummers' and sword dancers' plays of England. Their manner of introducing themselves, for one thing, is identical.

In comes I, old Belzebub,
And in my hand I carries my club,

announces a Gloucestershire lad about Christmas time.

Aqui sale Belcebú,
a vuestras plantas postrado,

declaims one from Huesca province.

Which likeness, just indicated here, both ends the *pastorada* and brings us back to the old rite, kept in memory still by Winter Solstice plays, by Spring or Summer Solstice dances, every one of them more or less true to type, stretching across the whole continent of Europe from Piedmont to Shetland, from Bulgaria to the Gallician coast.

It would be surprising if the midsummer cult at thaumaturgic Orosia's rock sanctuary were a thing apart.

The Topography of Saxon London

by R. E. M. WHEELER

IN this note on Saxon London I am not concerned in detail with the wearisome question whether London did or did not survive through the Dark Ages of the 5th and 6th centuries. Were it not for the vague generalities of an obsessed 6th-century 'Welshman', writing a moral thesis probably in Brittany under difficulties which he himself deplores, no one would ever have suggested that London ceased to exist at the time of the Saxon invasions. Yet, it may be recalled, Gildas does not so much as mention London; he was not concerned with London; he was not indeed concerned with history save in so far as it could be subordinated to his propaganda against the sinners of western Britain. Whatever may have happened to the cities of the west, there is in truth no valid historical reason for supposing that London perished after the Roman period, to be born all over again in a Saxon England.

Nor is there any archaeological reason for this supposition, although archaeologists have not always (it must be confessed) seen clearly in the matter. Thus in 1912 the late Professor Haverfield told the Classical Association that 'for a while, London ceased to be. . . . Nothing has been found to suggest that Roman Britons dwelt in London long after A.D. 400. Nothing Saxon has been found to suggest that the English occupied it till long after A.D. 500. . . . It lay waste a hundred years'. Here Homer surely nods; for what are the facts? We know from Bede that in the 7th and 8th centuries London was the flourishing 'mart of many nations': nevertheless *only three* relics from the soil of the City can be ascribed with any certainty to those two centuries. On the other hand, to the supposedly 'blank' 5th and 6th centuries no less than *seventeen* relics from that soil can safely be ascribed. Such as it is, the archaeological evidence thus emphatically supports a Dark-Age London.

In these pages, then, I propose to assume that in some sort—if only as a sub-Roman slum—London lasted on through the Dark Ages; an urban anachronism, perhaps, at a time when the dominant element

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in the body-politic was mainly concerned with the fashioning of Rural England, but none the less an entity sufficiently living to transmit something of the Roman heritage to later times. It is not indeed difficult to imagine a 5th- or 6th-century Londoner muttering 'civis Romanus sum' as he put his stair-balusters on the kitchen-fire; and it is with this mental picture in the background that I turn to the neglected subject of the topographical development of London in and after the 7th century.

The materials for a reconstruction of the topography of Saxon London are not abundant, but they are by no means without significance, particularly if considered in relation to the topography of Roman London as it has been recovered from scraps of evidence in recent years. For a proper appreciation of the subject, it is necessary at the outset to recall the natural features of the site of the city within the lines of its Roman walls.

These walls enclosed an area of about 330 acres, divided almost centrally by the Walbrook, which still pursues its course beneath the Bank of England and the Mansion House and flows into the Thames immediately west of Cannon Street station. On each side of this stream, the natural surface of the ground rises gently to form two small hills, both attaining an altitude of about fifty feet above sea-level. The eastern height (Cornhill) is crowned by the ancient market of Leadenhall, overlooking the successive sites of London Bridge. On the western height, above the steep hill (Ludgate Hill) which drops towards the river Fleet, St. Paul's Cathedral, in one form or another, has stood since its foundation at the beginning of the 7th century. These two dominant buildings provide, in themselves, the basic clues to the topographical development of the early city.

The eastern building—Leadenhall Market—stands partially on the site of the great basilica, which, 500 feet in length and the longest Roman building north of Rome, must have formed the focus of public life in the Roman city. Herein, by analogy, were the administrative offices, the law-courts and the central meeting-place for business-men; whilst nearby would be the principal market-place of the city. In some degree, the medieval and modern market perpetuates this usage, though whether there was an actual continuity between the Roman basilica and forum and the medieval Leadenhall, we shall never know. In any case, both alike owed their position and their utility to the proximity of that determining factor in the history of the city—London Bridge.

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Archaeology has shown abundantly that it was on this hill above the bridge that the nucleus of the Roman city lay. Westwards across the Walbrook it began to straggle, indeed, at an early date, but the Roman street-plan here, towards Newgate, was governed by the purposeful lines of existing arterial roads rather than by the grid of a conventional Roman town-plan. An instructive analogy may be cited from Verulamium, where a similar extension of the town encompassed a stretch of the pre-existing Watling Street (FIG. 1). And, as at Verulamium, there is some evidence, particularly from the site of the General Post Office near Newgate, that the extension of Londinium, as outlined by the city-walls, was never very closely filled with buildings. It would seem that both at Verulamium and Londinium the final defences were planned to provide generously for a development which only in part materialized.

Bearing these primary facts in mind—the business-centre of the Roman city upon the eastern hill, and its more spaciouly-planned ‘West End’ upon the western—let us glance at the relevant evidence for the post-Roman period. This evidence falls into two categories : evidence of a structural kind, and the evidence of relics found in the soil.

In the former category, precedence must clearly be given to St. Paul’s Cathedral, founded by King Ethelbert early in the 7th century on the summit of the western hill of the city. If, as is likely enough, the massive Roman basilica still stood upon the eastern hill, the two dominant buildings were at once contrasting symbols of the old order and the new. And the contrast is further emphasized if we consider the distribution of other ecclesiastical dedications for which an early date is probable (FIG. 2). Admittedly, the dating of a dedication solely on presumptive grounds is a precarious business : the apostles, for instance, notably St. Peter and St. Paul, though they occur frequently as patrons in the early church, do not themselves imply an early date for any particular foundation. But certain of the early ecclesiastics and martyrs enjoyed a more limited vogue, and, with due reservation, we may note a number of London dedications which may be thought to belong to the first two centuries of Saxon Christianity. Close to St. Paul’s Cathedral stood churches dedicated to St. Gregory and St. Augustine (presumably the Gregorian missionary) and ascribable, therefore, to the period immediately following the re-conversion. St. Augustine’s church stood at the east end of St. Paul’s, and St. Gregory’s at the west ; and this group of three churches has been

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compared with similar groups of the 7th century at Canterbury, Monkwearmouth, Malmesbury and elsewhere.¹ It may well be that,

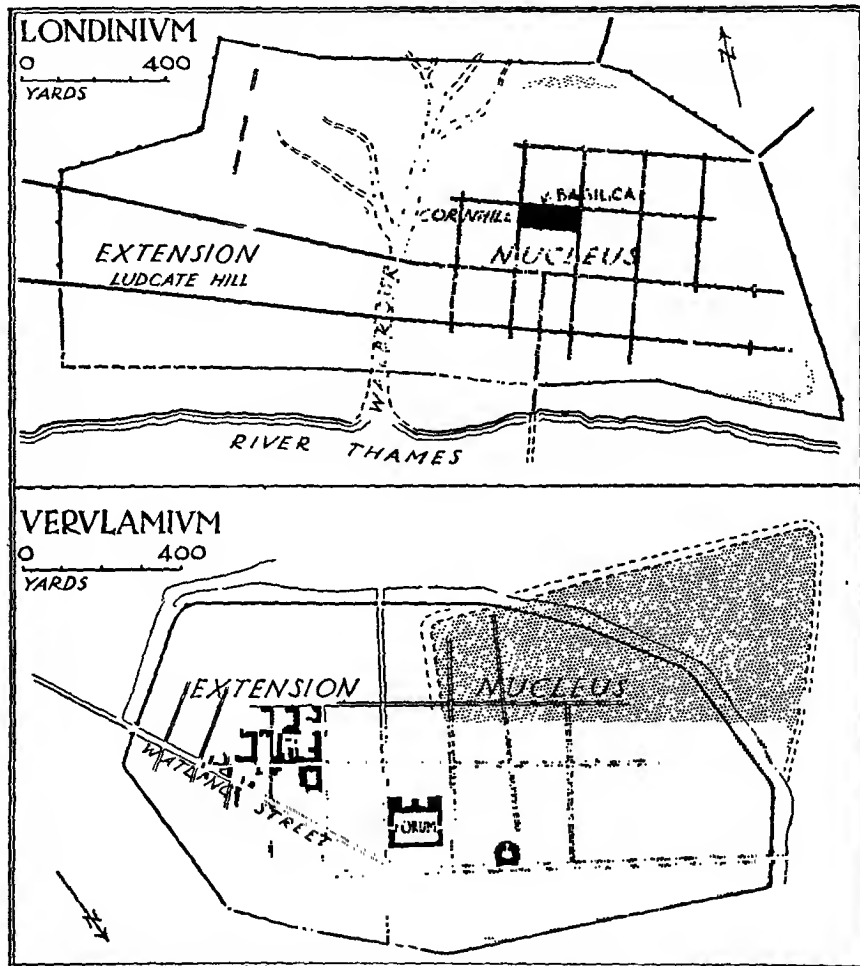


FIG. 1. SKETCH-PLANS OF ROMAN LONDON AND VERULAMIVM, TO SHOW THE 1ST-CENTURY NUCLEI OF THE TWO CITIES (STIPPLED AREAS) AND THEIR EXTENSION (INCLUDED WITHIN THE LATE 1ST- OR 2ND-CENTURY DEFENCES) ALONG THE ADJACENT HIGHWAYS

as in the partially surviving group at Canterbury (the Saxon churches of SS. Peter and Paul, St. Mary and St. Pancras), the three early

¹ A. W. Clapham, *English Romanesque Architecture before the Conquest*, p. 52. I am much indebted to Mr Clapham for reading the present paper and for helpful suggestions.

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churches at St. Paul's stood in alignment from west to east, forming a sort of procession of churches along the hilltop. Again, a small church, not rebuilt after the Great Fire, but situated formerly to the west of the Walbrook and adjoining Cheapside, bore the early dedication of St. Pancras. Likewise to the west of the Walbrook, churches dedicated to St. Martin, notably on Ludgate Hill and in Upper Thames Street,²

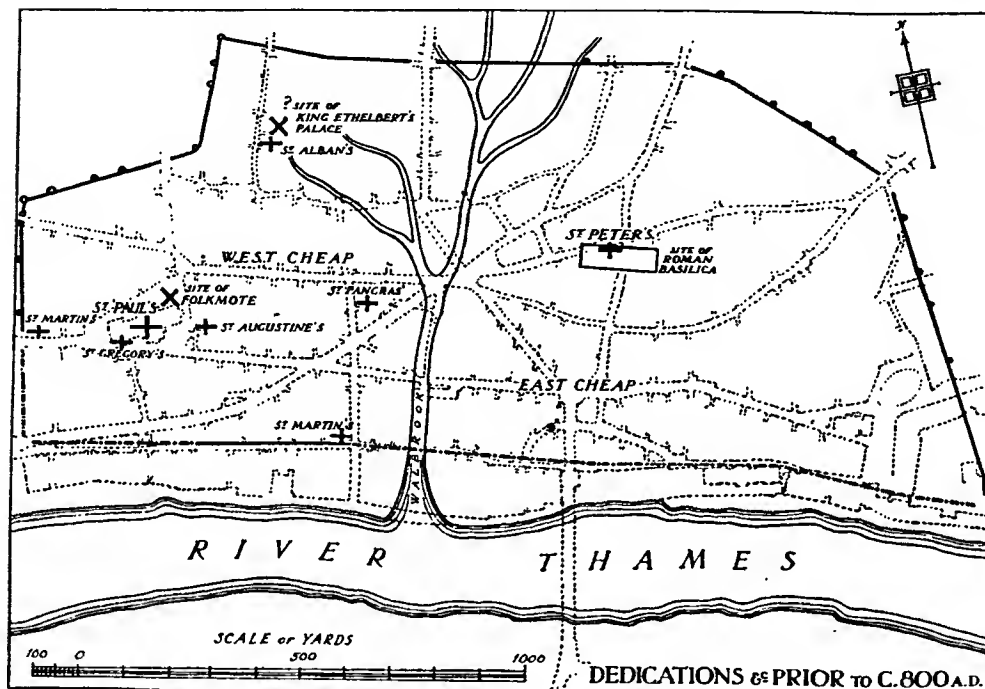


FIG. 2. DISTRIBUTION OF CHURCHES, ETC., ASCRIBABLE TO THE EARLIER SAXON PERIOD IN LONDON

may also be early; whilst the church of St. Alban in Wood Street may be associated with the revival of the cult of that British saint by Offa of Mercia in the 8th century.³

² The church of St. Martin-le-Grand may be equally early—its foundation has been variously ascribed to Cadwallain, to his followers in his memory and to Wihtraed king of Kent (694–725)—but, if so, it was refounded in 1068, and the Norman foundation is the only certain fact. See Victoria County History, *London*, I, 555.

³ This church is said by Matthew Paris (13th century) to have been a chapel of King Offa. *Lives of the Abbots*, ed. Wats, 1002.

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To the east of the Walbrook there is no similar group of early dedications. The contrast is remarkable, and is emphasized by an important exception. As early as 1417,⁴ and perhaps as early as the 12th century,⁵ the belief is known to have been current that St. Peter's church, Cornhill, was founded by King Lucius, 'to be', in the paraphrase of Stow, 'an Archbishops see, and Metropolitane or chiefe

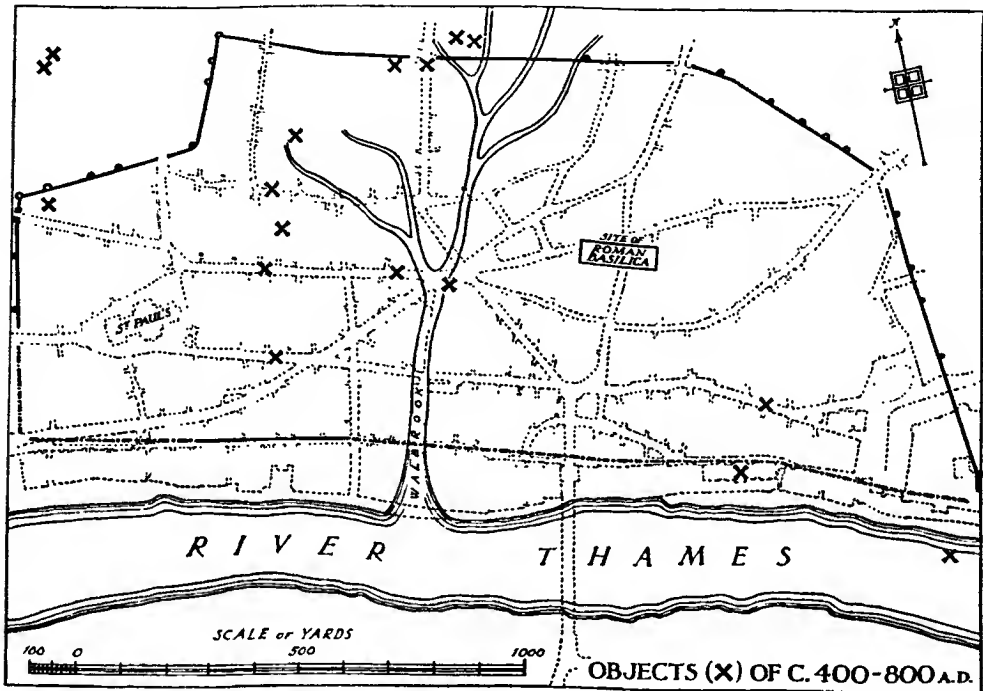


FIG. 3. DISTRIBUTION OF OBJECTS OF THE EARLIER SAXON PERIOD IN LONDON
(It will be observed that in Figs. 2 and 3 the distributions within the walled area have a westerly tendency)

church of his kingdome, and that it so endured the space of foure hundred years, untill the comming of Augustine the Monk and others from Rome, in the reigne of the Saxons'. This tradition is unlikely to

⁴ See C. L. Kingsford, *Stow's Survey of London*, II, 304; and H. T. Riley, *Memorials of London and London life in the XIIIth, XIVth and XVth centuries*, p. 653. In 1417, the rector of St. Peter's, Cornhill, was confirmed by the Mayor and Aldermen in his customary right to precedence in the Whit Monday processions, on the ground that St. Peter's was 'the first church founded in London'.

⁵ Stow cites an otherwise unknown work of Jocelyn of Furness as his authority.

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have arisen subsequently to the establishment of the episcopal see at St. Paul's; and since, moreover, the erroneous association of Lucius with Britain (by confusion with Britium) can be traced back as far as 530 A.D.,⁶ the whole story may with probability be regarded as an essentially genuine piece of pre-Augustinian history—the essence of it being that medieval St. Peter's represented the episcopal church of the Roman city. Today, St. Peter's church stands upon a part of the great Roman basilica, and its remote predecessor may well have been a Roman church situated close to the forum and basilica, in a position reminiscent of that occupied by the little church in the Roman town of Silchester.⁷

Ecclesiastically, then, we are confronted with a group of apparently 7th- or 8th-century churches round the Saxon cathedral of St. Paul on the western hill of the city, and with the traditional centre of the older Roman Christianity on the eastern. The early concentration of the Saxon settlement upon the western hill is further emphasized by the secular evidence. It may be that King Ethelbert built a palace there, not far from his cathedral. An account dated 1531 relates to 'Expens and chargis in the clensying of certeyn olde ruinouse houses and grounds lying in Aldermanbury, sumtyme the Place of Saincte Aethelbert Kyng';⁸ and, though so late a tradition is not worth much in itself, it is not lacking in probability. It is supported by the statement of Matthew Paris that the church of St. Alban, in the adjacent Wood Street, was a chapel of King Offa and had been contiguous with his palace (above, p. 294, note 3); which was, we may suppose, the traditional London residence of the Saxon suzerains and derivable therefore from the first effective suzerainty—that of Ethelbert. But of greater import is the definite fact that, until its disuse at the end of the 13th century,

⁶ See C. Oman, *England before the Norman Conquest*, 7th ed., p. 178.

⁷ Without emphasis, another possibility may be suggested. There is every likelihood that the London basilica and forum were of the type represented at Silchester, Caerwent and elsewhere, and so approximated to the normal plan of the headquarters-building of a Roman fortress. Now in the military headquarters the central room at the back of the basilica was the official regimental shrine; and it is likely enough that the corresponding room (emphasized at Silchester by an apse) at the back of the civil basilica fulfilled an equivalent function, as a sort of municipal chapel. Today, the high altar of St. Peter's, Cornhill, stands over the site of the central room at the back of the London basilica. Does St. Peter's thus represent, in all topographical literalness, a continuous tradition from the time when Christianity first became the official religion of Roman London, with an official altar in the old municipal shrine?

⁸ *Royal Commission on Hist. MSS.*, 9th Report, p. 44a.

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the folkmote or assembly of the freemen of the city was held on a piece of land to the south of Westcheap and northeast of St. Paul's. The locale of this ancient and characteristically Teutonic institution is sufficient and conclusive evidence that the secular, no less than the ecclesiastical, focus of the early Saxon city lay upon the western of the twin hills.

If we turn from structural evidence to that of the relics which chance has preserved for us from the soil of London, the evidence is strikingly similar. It is becoming increasingly clear that archaeologically the culture of sub-Roman Britain, in contradistinction to that of Saxon Britain, was largely *negative* in character : the proof being that on non-Saxon sites known to have been occupied in the 5th or 6th centuries little that can be regarded as distinctive of those centuries has come to light.

In London this negative quality is exaggerated through the ancient destruction of the upper strata by building-operations ; but since this factor must equally have affected the survival of relics of the more positive culture of the Saxons, the comparative value of the available material is unimpaired. It is thus a notable fact that, of the London relics which have survived from the period 400–800, thirteen are known to have been found to the west of the Walbrook and only three to the east of it (FIG. 3).⁹ Most of these relics are of Saxon rather than sub-Roman type, and so notable a disproportion in their distribution can scarcely be accidental. They support the conclusion that the nucleus of the Saxon settlement lay to the west of the Walbrook. On the other hand, they are at the same time not inconsistent with the possibility of an aloof and ill-equipped sub-Roman population quartered contemporaneously in the old centre of the Roman city, to the east of the Walbrook. To this possibility we shall return.

In the later Saxon period (8th or 9th century to the Norman Conquest), the picture changes (FIG. 4). Churches now begin to spring up in the eastern no less than the western half of the city, and the distribution of relics extends equally throughout the walled area. Roman London now definitely and completely becomes Saxon London, a cultural unit once more commensurate with its Roman framework. The change was perfected during the first half of the 11th century, and many London churches probably date from that period of consolidation.

⁹ The Lists upon which the present maps are based will be included in a forthcoming London Museum publication, *London and the Saxons*.

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To the west of the Walbrook, on the banks of the stream, a church was built to St. Alphage sometime after the bishop's martyrdom in 1012. Churches to St. Mildred (d. early in the 8th century) in Bread Street and Poultry date probably from the period of revived interest attendant upon her disputed translation from Thanet to Canterbury in 1033. To a similarly late pre-Conquest date probably belongs the foundation of the church of St. Sith, alias St. Benet Shorehog, which, before the

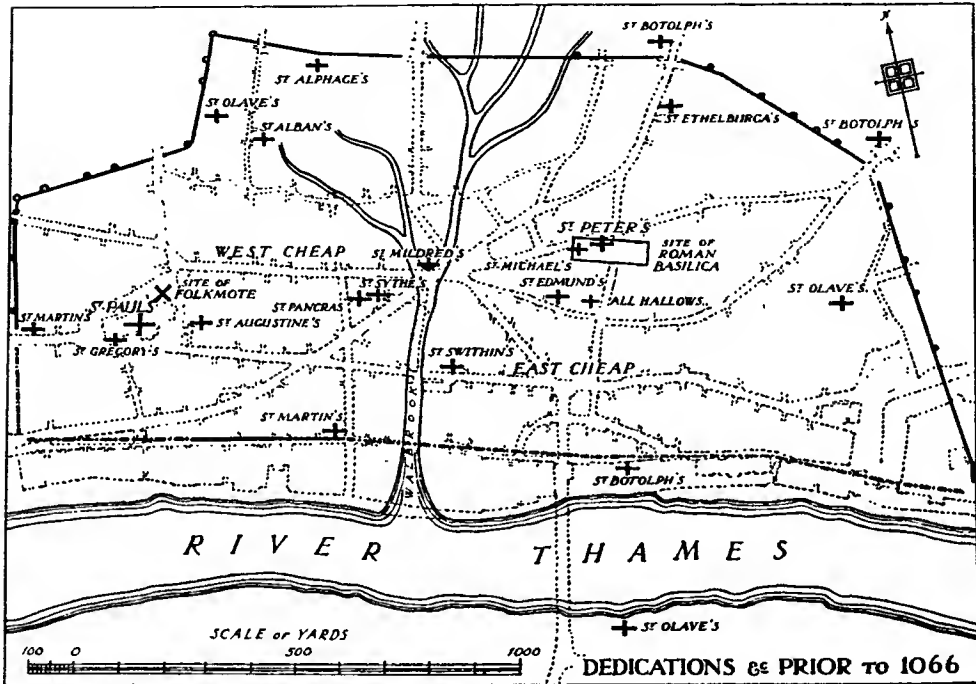


FIG. 4. DISTRIBUTION OF CHURCHES, ETC., DURING THE LATER SAXON PERIOD IN LONDON

Great Fire, stood in Pancras Lane, Queen Street, and commemorated the Saxon saint Osyth, in whose legend 7th-century and Danish elements are mingled. A little church which stood, also until the Great Fire, in Silver Street in the Aldersgate Ward was dedicated to St. Olave and must therefore have been founded after the death of that Norwegian king in 1030. St. Olave was not, indeed, officially canonized until the following century, but it is likely that his church in Silver Street, together with the better-known churches similarly dedicated in

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Hart Street (east of the Walbrook) and in Southwark, dates from the pre-Conquest generation when the saint's prowess was still fresh in the minds of the Londoners. Other dedications of late Saxon period in the eastern half of the city probably include the churches at Billingsgate, Aldgate and Bishopsgate commemorating St. Botolph, though at what interval of time after his death in 680 is doubtful; a church in Bishopsgate dedicated to St. Ethelburga, possibly the sister of the great bishop

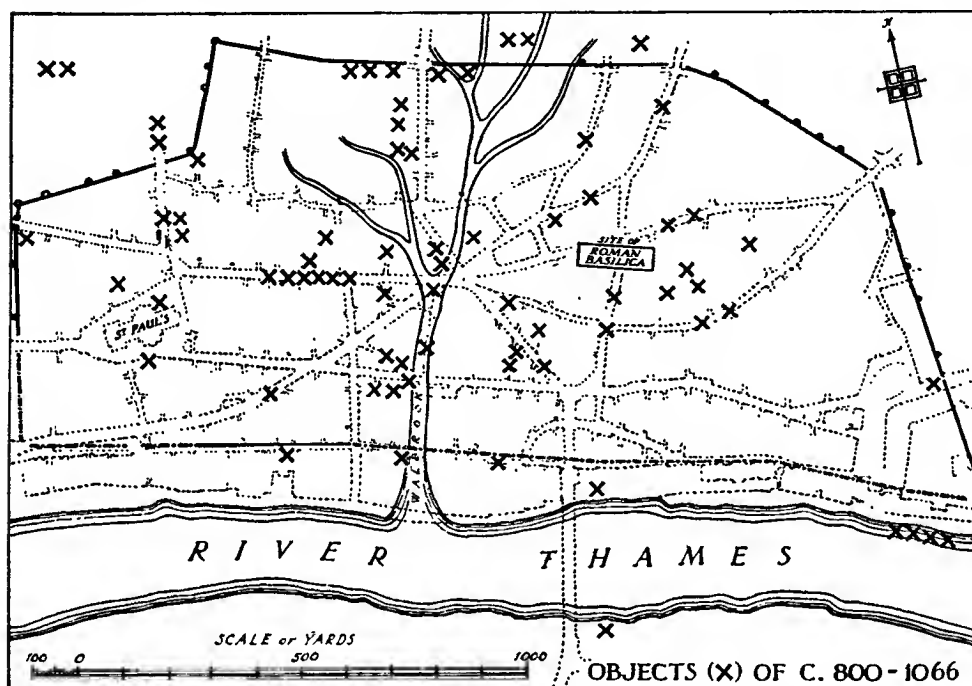


FIG. 5. DISTRIBUTION OF OBJECTS OF THE LATER SAXON PERIOD IN LONDON
(It will be observed that in Figs. 4 and 5 the distributions extend throughout the walled area)

Erkenwald who died in 693; another, near London Stone, to St. Swithin (d. 862); and another, in Lombard Street, to St. Edmund (d. 870), whose body was brought from Bury to London for security in 1010 and rested in St. Gregory's church by St. Paul's for three years¹⁰—doubtless the occasion of the dedication. Lastly, there is

¹⁰ It is sometimes asserted that the martyred king's body was preserved during this period in St. Helen's church, Bishopsgate, but the statement has no ancient authority, and seems to be a blunder of J. Entick, *History and Survey of London*, etc. (1766) III, 398.

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documentary evidence for the existence of All Hallows in Gracechurch Street and St. Michael's in Cornhill before the Norman Conquest.¹¹

This wide dissemination of ecclesiastical activity finds its counterpart in an equivalent diffusion of actual relics of occupation (FIG. 5). Between the beginning of the 9th and the middle of the 11th century, the earlier disharmony in the distribution of objects over the two halves of the city comes to an end. Of relics dating from this period, about thirty occur to the west of the Walbrook, twenty-one to the east and some half-dozen upon the line of the stream itself. The cultural unity of the whole of the walled area by the 11th century is sufficiently evident.

Such is the evidence for the topographical development of Saxon London. It is clear and significant that this development pursued a course diametrically opposite to that along which Roman London had evolved several centuries previously. Roman London began on the hill above London Bridge and spread westwards; Saxon London emerged on the western hilltop and spread eastwards. The reason for this deserves, in conclusion, a momentary consideration.

The Roman city, as the foundation of a great commercial power searching for the most seaward point at which the Thames could be bridged and maritime traffic conveniently focussed, was primarily a bridgehead-settlement at the more dominant end of the Southwark crossing. Its desultory extension westwards was a matter of no great or, at any rate, no enduring importance. Analogies in this matter are instructive. At Verulamium, where, as we have seen, an early Roman expansion comparable with that of London has been traced by excavation, we know that civic life and organization survived until after the visit of Germanus in 429; and yet this same excavation has shown clearly that, for over half a century before that event, a considerable part at least of the extended city was practically derelict. A reduced urban population had withdrawn from the outskirts into the vicinity of the central buildings of the town.

Similarly in Gaul: when the Gallic towns were walled or re-walled at the time of the German inroads of the 3rd century, the new defences normally enclosed only a part of the area formerly covered by buildings. Thus at Tours only 23 acres in the vicinity of the amphitheatre were protected at this time; at Perigueux—a substantial Roman town in its best days—a mere 13½ acres, again beside the amphitheatre, were defended; and at Sens, one of the most distinguished cities of Roman

¹¹ F. M. Stenton and E. Jeffries Davis, *Norman London* (Historical Assn., 1934), map.

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Gaul, only 47 acres were walled. Many other examples could be cited, and it is clear that in 4th-century Gaul the urban populations whose safety was of any consequence had dwindled in many cases to a shadow of their former bulk.

Nor can the case have been vastly different in Londinium. Here we may safely assume in the 4th century, and still more in the 5th, a shrinkage of the population and a concentration of it round the nodal buildings of the city—*i.e.* about the bridge, and the basilica on the eastern hill. When, therefore, the East Saxons from the Thames estuary and, later, the civilized and partially urbanized Jutes of Kent, began in the 6th century to display an effective interest in London, it was on the relatively vacant hill to the west of the Walbrook that they obtained their easiest foothold, with the results which have been indicated above. For a time, the new Saxon town of St. Paul's and the old Roman city (shall we say) of St. Peter's¹² lay side-by-side, essentially distinct from each other, with the Walbrook between them. Gradually, with the passing of the years, Saxon and British interests converged, and Saxon influence interpenetrated the sub-Roman element in eastern London, without, perhaps, completely demolishing its Roman traditions. But the old, natural *limes*, the Walbrook, long continued in one way or another to exert an influence upon the affairs of the city. The position in late Saxon and post-Conquest times was well stated by the late Dr William Page. After suggesting that the Walbrook may have formed the division between the two stallerships of London, Mr Page observes that the stream 'divided London into two very distinct and almost equal halves. Each of these districts had its separate market-place [East Cheap and West Cheap], its separate wharves with different customs, and its different rules for bakers and sellers of other provisions; and each side supplied eighteen sworn men to form the thirty-six selected for the purgation by the Lex Magna of those accused of the greater crimes. More important perhaps was the division which the Walbrook afforded for separating the wards into two groups for assessments and other purposes, a system which was in use as late as the time of Stow. In this way London, like many French cities, was,

¹² Whether we should follow the medieval Lucius tradition to the length of presuming a continuous Christian cult at St. Peter's throughout the Dark Ages is questionable. Such a continuity is not, indeed, impossible. On general grounds, the lingering of Christianity in a sub-Roman slum is scarcely less likely than its active survival in the crofts of the 'Roman citizens' of the Celtic outlands. At the best, however, we must suppose that the Christianity of 6th-century London was a withered growth.

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before the 11th century, composed of the *cité* with its royal residence and cathedral establishment on the west, and the *bourg* with its mercantile population and institutions on the east'.¹³

The ultimate origin of this separateness is, of course, to be sought in the conveniently symmetrical geography of the site. But it is here postulated that the geographical duality of London received a sort of political sanction during the 6th and 7th centuries when, it seems, the natural division of the city became, for a time, a cultural division also. It can at least be affirmed that all the available evidence is in accordance with this view.

¹³ *London : its Origin and Early Development* (1923), p. 194. It may be added that the old division has been retained in the allocation of parishes to the two modern deaneries of London.

Some Observations on Recent Geological Movements of the British Coastline

by O. T. JONES

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IT is well known that in geologically recent times the British Isles have been affected by vertical movements, both upwards as shown by raised beaches and downwards as proved by submerged land surfaces and drowned valleys. There are still differences of opinion whether these movements result from changes in the level of the ocean surface or are due to real upward or downward movements of the land area. In the former case a change of sea level might be expected to produce within small limits the same amount of apparent elevation or depression of the land area, whereas in the latter case the amount of movement might vary at different parts of the coastline.

On many parts of the coast of Scotland a raised beach standing at approximately 25 feet above the sea is a prominent feature, and in the south of England and Wales there are many places where beach-deposits resting on a rock platform can be seen at about the same level above the sea. The existence of a beach at about the same level both in the south and in the north of the British Isles cannot, however, be regarded as proof of uniform upward movement, since it is now certain that the beaches in the north and those in the south are of different geological ages.

It may be of interest to review briefly the nature of these recent movements of the British coastline. It is impossible in a brief article to do more than outline the main feature of the available evidence. The criteria for determining the age of movements and for the correlation of movements in different parts of the coast are of several kinds—physical or stratigraphical, faunal or floral, and cultural. In some cases two or more of these exist together, in others only one may be available.

On some parts of the coast raised beaches are found within a short distance of drowned valleys or submerged land surfaces, proving that

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both upward and downward movements have affected the same region, and the relative position above the level of the sea of a feature such as a raised beach is the resultant of all movements that have occurred since the beach was formed. In general in the south of Britain the latest movement is an apparent depression of the area, but in the north it is probable that during the same period the land was rising. Let us suppose, therefore, that on a particular stretch of coast a raised beach occurs at 25 feet above sea level, and that in a nearby region there is evidence of a depression of 100 feet which occurred after the raised beach period. It follows that subsequently to the deposition of the materials that form the raised beach the land was apparently elevated 125 feet and afterwards depressed by 100 feet.

In considering the evidence of movement furnished by raised beaches one must therefore take into account the history of the area subsequent to the period of formation of the beach.

In illustration of these principles, I may refer to the evidence of movements on the coast of South Wales, especially in the Gower Peninsula and near Swansea. On various parts of the Gower coast there are well-developed remains of an extensive raised beach consisting of rolled pebbles with shells resting on a rock shelf and standing some 25 to 30 feet above high-water mark. At the general level of the raised beach there are caves in the limestone cliffs in which the rock shelf has been eroded and some of these caves were accessible to the sea when the beach was formed. Many of the caves have been explored and have yielded remains of prehistoric mammalia. The most important of these include *Elephas antiquus* and *Rhinoceras tichorhinus*, both of which are familiar in so-called early Pleistocene deposits. In some of the sections the subsequent history of the area is recorded in the materials which overlie the beach. These consist of blown sand, followed by a rubble of angular limestone fragments with some interstitial sand and clay, which have been derived by prolonged weathering of the limestone cliff which overlooked the rock shelf on which the beach material rests.

From this succession we may draw the following inferences. At a time when the level of the land with respect to the sea was some 30 to 35 feet lower than at present, the waves eroded the Carboniferous limestone rock of the Gower coast and produced a rock platform backed by a steep limestone cliff. At the same time caves were eroded at the foot of the cliff into which the sea entered. There is no direct evidence that during this period of marine erosion the land was sinking

PLATE I



RAISED BEACH ON SOUTHWEST SIDE OF GRASSHOLM ISLAND, PEMBROKESHIRE
(By permission of the Geological Survey and Museum and with the sanction of the Controller of H. M. Stationery Office)

PLATE II



RAISED BEACH (CONCRETED SHINGLE AND SHELLS) OVERLAIN BY 'HEAD' AND RESTING ON CARBONIFEROUS LIMESTONE
BETWEEN PWLL-DI AND BRANDY COVE, CASWELL BAY, GOWER PENINSULA
(By permission of the Geological Survey and Museum and with the sanction of the Controller of H.M. Stationery Office)

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relatively to the sea, but it is possible that the advance of the sea and the erosion of the sloping rock platform may have been due to a progressive relative rise of sea level. It is uncertain whether during this period of erosion beach materials were being deposited at the same time, but it is probable that the erosion was assisted by the beach pebbles and sand which were hurled by the waves against the base of the cliff and into the caves. The rock shelf presumably sloped seaward, and in that direction gradually sank beneath the sands of the foreshore. This episode was brought to a close by a relative rise of the land area, so that the sea retreated until the beach pebbles and sand were no longer within reach of the sea, and were left undisturbed on the rock platform and in the caves. There is no direct information regarding the extent of the withdrawal of the sea. The sands which overlie the beach are, however, blown sands and it must be presumed that as a result of the relative elevation a considerable stretch of bare sandy foreshore previously covered by the waves was laid bare. This sandy tract furnished the materials for the deposit of blown sand, which was banked up against the abandoned cliff. As soon also as the base of the cliff ceased being kept clear by wave action, the debris produced by weathering of the cliff began to accumulate. In the first stage after the withdrawal of the sea, very little of such material is found among the blown sand deposits. From this it may probably be inferred that the period of blown sand accumulation was relatively short, but from the extent of the deposit a considerable stretch of foreshore must have been exposed, thus leading to the conclusion that the apparent rise of the land was relatively rapid and of considerable amount. The angular deposit which overlies the blown sand is of a type familiar in the south of England, and corresponds to what is termed 'head' in Devon and Cornwall. It is a product of sub-aerial weathering on a steep slope, the rocks broken down by weathering gradually travelling downwards under the action of gravity, and spreading out at the foot of the slope. In consequence of its mode of formation it often has an imperfectly stratified appearance, the stratification being inclined at a considerable angle. The head may extend to a considerable distance forward from the foot of the original slope, and in general becomes finer grained as its distance from the cliff slope increases.

The Gower raised beach is also of great interest because on parts of the coast the head is overlain by unmistakable glacial deposits containing abundant rounded and scratched rocks foreign to the locality, embedded in a gravelly matrix. This area furnished for the first time

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unequivocal evidence that the raised beach deposits were of earlier date than the glacial deposits of that part of Wales. The fact that the head is immediately overlain by glacial deposits prompts the suggestion that the great thickness of angular material which covers the beach may be due to unusual rapidity of rock weathering such as might result from extreme climatic conditions. In Gower, there is, however, no direct proof of this view, but in parts of the South of England it is clear that great deposits of angular deposits called coombe rock show a fairly close connexion with glacial conditions. This will be referred to later.

The subsequent history of the region is shown by the Tawe Valley a few miles to the northeast. About 6 miles above the mouth of the river at Swansea, a great ridge of glacial deposits crosses the valley near Clydach. This ridge is a terminal moraine of the ice which halted there during its retreat northwards. There are glacial deposits almost continuously developed between this moraine and Gower, but whether the material which overlies the raised beach at the coast belongs to a further extension of the ice sheet which on its retreat deposited the moraine, or whether they belong to an earlier glaciation, has not been decisively proved. South, or in front of, the moraine there is an extensive plain of outwash gravels. The present river channel, which is occupied by alluvial deposits, lies to one side of the outwash plain and at a lower level. Its floor has been proved to descend to a depth of over 130 feet below Ordnance Datum, and the valley is filled by river gravels and sands and by clays probably of lacustrine origin. The coarseness of the gravels at the base of the infilling indicates that they were transported by a powerful stream which presumably had a gradient seawards at least as great as that of the modern river Tawe. The surface of the sea when this channel was eroded must therefore have been at least 150 feet lower than its present level.

These observations reveal, therefore, that at some time after the retreat of the ice and the formation of the outwash plain in front of the moraine there was a relative rise of the land to at least 150 feet higher than its present level and a subsequent depression to its existing position. There is no direct evidence of the relative level of land and sea prior to the post-glacial elevation, though there is some probability that it was not very different from the present level. It is likely also that the elevation which succeeded the raised beach deposition carried the land to a greater height than it occupied near the end of the glacial period, so that between that elevation and the succeeding post-glacial elevation there may have been depression of the land.

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The evidence as to the date of these movements may be stated briefly. In a cave (Bacon Hole) adjoining the raised beach a marine sand with littoral shells is overlain by sands and cave earth containing remains of *Elephas antiquus*, *Rhinoceras leptorhinus*, and other mammals which are usually regarded as of early Pleistocene age. These are covered by a thick layer of stalagmite and bone breccia. The occupation of the cave by these extinct mammalia occurred, therefore, during or later than the elevation of the land which raised the caves and the beach above the reach of the waves.

The alluvial and other deposits which occupy the channel of the river Tawe include two or three beds of peat, the lowest of which is over 50 feet below Ordnance Datum and the highest some 5 to 10 feet below Ordnance Datum. The latter appears to be coeval with the submerged forests exposed in various parts of the coast of South Wales and may probably be referred to the early Bronze Age or latest Neolithic. Since that peat bed was formed there has been a relative depression of the land area of at least 25 to 30 feet, and since the lowest bed of peat was formed a depression of at least 70 feet. This depression was however only the latest stage of the much greater depression indicated by the deposits that occupy the deepest part of the Tawe Channel. One can, therefore, state broadly that the depression began some time after the latest glaciation of South Wales and continued into the beginning of the Bronze Age. The greater part of the movement occurred probably during the Mesolithic-Neolithic period.

Turning to the south coast of Britain the most conclusive evidence comes from the area between Brighton and Portsmouth. At Brighton there is a well known raised beach standing at about 15 feet above present sea level. It is overlain by a great thickness of coombe rock which is generally attributed to the Middle Pleistocene. The fauna (mammoth, etc.) is that frequently associated with coombe rocks in the south of England and with Mousterian cultures. At Selsey Bill this beach with overlying coombe rock is underlain at some distance below by marine clays with an abundant fauna of mollusca which lived at a depth of some 20 fathoms. The molluscs are associated with *Elephas antiquus*, and starting from the period when this clay was deposited it is obvious that there has been a considerable elevation of the area since the clay is now exposed just above low tide mark.

Farther inland there is a raised beach which yielded the above fauna and also implements which include some of late Acheulean age. The level of this beach at between 100 and 130 feet above Ordnance

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Datum, together with its community of mammalian fauna with that of the clay on the foreshore at Selsey Bill, and also the depth of the sea in which the molluscan fauna lived all suggest that the high level beach marks approximately the margin of the sea in which the molluscan was deposited. Here then we have a beach containing the same characteristic mammalia as in the bone caves of Gower but standing at a level nearly 100 feet higher, whereas on the nearby coast there is a raised beach at approximately the same level as that of Gower yet almost certainly of much later date. These examples illustrate the danger of assuming that a raised beach which stands at a given height above sea level is of the same age as another beach in another part of the British coastline which stands at the same level.

The evidence regarding the age and extent of later movements of the English Channel region is not as complete as in South Wales, but the great depth to the rock floor of some of the valleys of South Devon indicates that a depression of more than 100 feet has occurred since these valleys were excavated. The total extent of the depression is unknown but is not likely to have been less than that of South Wales. In some of the valleys, peat beds have been found considerably below sea level, so that the latest phase of movement was probably a depression. The high level beach which now stands more than 100 feet above sea level may therefore have stood 250 feet or more above that level before the depression set in.

If we consider the northwestern coastline of Britain we find a very different state of affairs. In Scotland there are places in three conspicuous shelves or platforms which are generally referred to as the 25-foot, the 50-foot and 100-foot raised beaches. It is probable that if any one of these beaches was carefully traced the level would be found to vary from place to place, and it is quite possible that a 50-foot beach in the southwest of Scotland might prove to be a 100-foot beach farther north. This question is one that requires re-examination.

It is believed that both the 50-foot and the 100-foot beaches were deposited while glaciers occupied the upper ends of some of the Highland valleys. The rise has therefore occurred during and after the glaciation of the Highlands, which was probably distinctly later than the latest glaciation of South Wales. The 25-foot raised beach is definitely post-glacial, since the shelf on which it rests is covered in glacial clays. This beach is also well seen on the Antrim coast of Ireland. From there its level falls continuously southwards until at a few miles south of Dublin it stands at the present sea level.

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The most important evidence regarding the age of the 25-foot raised beach of Northern Britain is obtained at Larne, near Belfast. The Larne beach has yielded large numbers of stone axes which have commonly been referred to the Neolithic period, but at the present time that term has become somewhat vague. The beach materials were laid down during an advance of the sea resulting from a relative depression of the land. The axes are either contemporaneous with the formation of the beach, or were washed in from a pre-existing coastal tract during the advance of the sea upon the land, in which case the axes are older than the beach materials.

In Belfast Lough, a submerged bed of peat is overlain by estuarine deposits which are said to be of the age of the Larne gravels. If this statement is correct, then during the formation of the Larne beach deposits depression was in progress which resulted in a pre-existing land surface being carried to a considerable depth below sea level. Subsequently to the depression there has been elevation of the coastline and the beach materials have in consequence been elevated to form the well-known Larne raised beach (or 25-foot beach of Antrim) and the peat bed is less deeply submerged than formerly. If one may equate approximately the submerged peat in Belfast Lough with the earliest peat beds in South Britain, then it is significant that since these beds were formed the earlier movement in both regions was one of depression ; the later movement, however, was a continued depression in the south but an uplift in the north. There is no doubt, therefore, that the latest movement recorded on the British coastline affected different parts of the coast to varying degrees and must without question be referred to an actual movement of the land, and therefore did not affect the level of the ocean as a whole.

Further, the existence of such considerable differential movements in very late geological times should inspire caution in using the levels of raised beaches as criteria of age.

Isborsk—a Viking Stronghold

by L. TUDEER

LITTLE has been known of the Viking expansion in the East Baltic till some 10–12 years ago, when the new states of Estonia, Latvia and Lithuania began an enthusiastic exploration of their antiquities, in which research they have been joined by Finnish and Swedish archaeologists. In Russia, the Viking traces in Russian history have been the object of research for many years, and there the Nestor chronicle has been a literary guide to the results, which have given glimpses of the life of those ancient times—of the long water routes over Europe, the settlements founded by the Vikings, and the great cemeteries of primitive graves, outside those towns. In the following sketch of a Viking stronghold of the 8th–9th century no attempt is made to describe the many archaeological finds in systematic excavations* ; it is merely the impression, a strangely living impression, of one of those ancient places upon the ordinary tourist.

In Isborsk, 7 kilometres from the boundary line between Estonia and Russia, we have two centres of interest—firstly, the remains of the old hill-fort, ‘Truvor’s fort’, which was the Viking outpost, dating from some year between 860 and 900—and also the huge ruin of the later fortress built in 1330 by the Slavs for the protection of Pskoff, one of their important towns. This ruin still stands, now on the outskirts of a new independent state, which is still struggling against the weight of centuries of occupation by Danes, Swedes, Germans and Russians. The district round Isborsk is Russian in character, for it has belonged to Russia for centuries, but in Isborsk and its surroundings you find something more than a marvellously preserved old Russian historical atmosphere. The great ruin and the high plateau on which stood the first Viking stronghold, and the wide valley over which they held guard, seem to hold in themselves something so much older,

* Among the finds at Maly, a village 4 kilometres from Isborsk, an Anglo-Saxon coin was found dating from the time of Ethelred II (979–1016).

ISBORSK—A VIKING STRONGHOLD

something which is not only Russian. In that saga-like landscape, Isborsk stands like an incarnation of primitive age—of the plainness and the severity of the past, a past made almost audible here, so full is it of legendary happenings—yet it lies so wonderfully near and accessible to us.

The huge chalk stone walls and bastions of the fortress of Isborsk stand on high ground, overlooking a wide expanse of rolling downs, with many winding streams seeking their placid way between dark patches of woodland. Long white roads like ribands lead into the distance and ruddy slashes of 'old red' soil show in the gently sloping hillsides; this forms the background to the many groups of peasants' little grey houses, with their leaning fences and bits of kitchen gardens and narrow sunken lanes, and to the many low white churches with their quaint steeples and bright blue cupolas, which lie under the high sheltering walls of the old fortress.

This peaceful landscape lies so near the sinister mystery on the other side of the frontier, that in the sunset hours of a clear day the masses of the Cathedral at Pskoff etch themselves on the horizon in a glitter of golden domes and cupolas—so near is the great mother-church of the Pskoff 'Trinity' to its 'little brother', the church of St. Nicolas at Isborsk.

Sometimes it seems as if Fate unexpectedly gave you a perfectly finished picture, complete in every respect, in form and colouring and atmosphere. Isborsk at present recalls an old-world tapestry; the saga-like legend is there, and in the hazy distance the fighting tribes pass down the winding roads to Pskoff—to Novgorod and Moscow, and the very air seems to hold memories of the life, the strivings and the strife of centuries; for round this great gateway to the East hordes of Lithuanians, Vikings, Slavs, Swedes, Germans, Danes, Russians, Estonians and Finns have fought, and passed.

Isborsk belongs to what is almost legendary Russian history, and out of its dim antiquity we get that story of the three princes, who at the call of the fighting, quarrelsome Slavs came from 'over the sea', from 'out of the west' to rule over them.

The Slavonic tribes, emigrating from Bohemia, Silesia, Prussia and the shores of the Danube, eastward to Kief and Smolensk, and northward to Novgorod, found the country into which they penetrated (forest-land, with deep rivers) inhabited by various tribes of Estonians and Finns. They were gradually driven north and west and when the Slavs settled there, these tribes were on a line roughly up to Isborsk.

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Southward were the Letts and Lithuanians, while nomadic Mongols inhabited the southern steppes.

Through these lands went the great waterways by which the Vikings maintained contact between the West and the Byzantine Empire and the Orient, trading and marauding by way of the Finnish Gulf and Lake Ilmen, and the great Russian rivers—the Dnieper and the Volga to the Black Sea and Constantinople. They established colonies all along these water routes, acting chiefly as guards to the great caravans of merchandise which flowed back and forth through Europe.

It seems probable that they had already lost much of their power and were being driven out by the growing strength of the Slavs, when after some decades of fighting among themselves the Slavonic princes recalled them in 862. Here we get the well-known and typically Russian phrase, in the appeal of the ambassadors to the Viking chiefs: 'Our country is rich and great, but there is no order among us, come and rule over us'.

The legend further tells of the three brothers, Rurik, Sineus and Truvor, who answered the call and came with their households and followers and ruled—Rurik over Novgorod, Sineus at the White Lake, and Truvor at Isborsk. (This dynasty ruled the land through petty princes till the end of the 16th century, Ivan the Terrible being one of the last).

But we will return to the country round Isborsk, to Pskoff, and Novgorod.

Towns grew, as the Russian Empire expanded to the north, to Walamo and Archangel on the west; the German knights of the monkish orders were also growing strong, fortresses on both side were built, both sides invaded each others' territory, and the local population, the Letts and Estonians and Finns, were massacred by both.

Isborsk had been a fortified place in the Stone Age—under Truvor it became the chief Slavonic outpost against German aggression, which was already firmly planted in Reval and Riga. (And the trend to 'Balticum' has survived all the centuries and is true today).

Here on the hill, where now the cemetery lies, stood the first Viking fort. Surrounded on three sides by wide marshes and impenetrable forests, the approach to it from the west was guarded by a double moat, a high earthwork between the two being crowned by a stout stockade—and an old chronicle tells us that the only road by which the enemy could attack was covered by huge, loose boulders, thus making any military attack impossible.



ISBORSK, ESTONIA THE FORTRESS AND PART OF VILLAGE

ISBORSK—A VIKING STRONGHOLD

Here Truvor reigned for two years, here he died and was buried, as the church records at Pskoff tells us, 'according to pagan ritual'—and then till the 13th century there is silence in the records about his name.

But from the time of Truvor, Isborsk was the centre of warring expeditions. From manuscripts in the archives at Pskoff, we find that between 1030 and 1233, there had been 20 such attacks upon and from the fort, while in the later days of the century there was constant fighting. This perpetual state of warfare is explained by the appearance at this time of the Germanic knights, who at war with the Letts and Lithuanians and Estonians were now striving towards the lands of Pskoff and Novgorod.

In all this fighting, Isborsk bore a major part. In 1233, the Germans having taken the forts, help was sent from Pskoff, the Slavs retook the place and captured the German leader. After seven years of imprisonment in Pskoff, he escaped, joined the German forces and again took Isborsk; Pskoff again sent reinforcements, which however were completely destroyed. Isborsk was held for two years, when Ivan Newski relieved the place from German rule.

It was not till 30 years later that the Germans made another attempt, when they took and burned the old fort—to be again driven away.

In 1330 Isborsk was rebuilt—and now it became a huge strong fortress, with high stone walls and eight bastions—and still war flowed back and forth round it through the centuries.

The Viking rule had passed; taken by Germans, retaken by the Russians, Isborsk, the guardian outpost of the Slavs, fought for Pskoff, fought Novgorod, was besieged by the people of Pskoff, was taken by the Poles, was given by them to Moscow; and when Moscow needed help against her warring princes, it demanded men from Novgorod and Pskoff and Isborsk.

Through all these years of wars and bloodshed Russia was ever growing stronger, and after 1700 Pskoff, and its outpost across the marshes, remained in peace in Russian hands, but its military importance had waned.

Peter the Great thought to make use of the fortress in his war with Charles XII but it would have required much alteration and repair, and nothing was ever done. Again long years passed and now Isborsk, like an old soldier who has served his time, lives through the days in peace and tranquillity. Today, the past wraps its strange magic round the ruins, in that saga-like landscape where once the Vikings ruled,

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and the old fortress still stands there, sad, and proud and lonely, still looking 'over the fords' to Pskoff. Wrapped in dim memories of the past, it has surely never dreamed that its own people, for whom it fought for centuries would leave it so desolate !

But the people of Isborsk are true to its old tradition. They firmly believe that Truvor lies in the big grave on the cemetery hill, and that the great stone cross which marks the grave is his. Truvor was of course a pagan, and the cross with its undecipherable squares and circles must have been raised to another—a Christian chieftain—yet in some strange way Truvor's spirit dominates the place. Your thoughts go back through the ages, through those centuries of struggle, through the medley of peoples, and tribes, so many, and differing in race and beliefs, to the young Viking chief who died so soon in the new country he came to rule over.

Sineus and Truvor died and it was Rurik who reigned over the growing Russian Empire ; Rurik was the stone upon whom the new empire was built.

Sineus and Truvor have become almost mystical legendary figures and wise antiquaries dispute if they ever existed.

The Russian artist, Belebin, has painted those early knights as riding along the winding roads and through the dark forests—and Roerich the great painter has shown us some of those low, little white churches, with their tall narrow steeples.

Isborsk belongs to the fairyland of history, out of which has grown the fascination of Russian art and colouring. In the primitive faded tapestry which today is Isborsk, you still see a great living Past.

Salvian and the Ruin of the Roman Empire

by RAYMOND THOUVENOT*

AT the moment when Attila was preparing to attack the Western Empire a priest named Salvian, driven by the invasions from the Rhineland to Marseilles, published his tract *De Gubernatione Dei*, one of the strangest amongst the offspring of declining Latin literature.

The political situation was then most serious. The Franks occupied most of northern Gaul; the Burgundians were established on the Jura and in Savoy; Brittany and the Armorican towns had seceded; Aquitaine was in the hands of the Goths, Lusitania in those of the Suevi; the Vandals held Baetica and in 429 invaded Africa. There remained to the emperors of Ravenna only Italy and the valley of the Rhône. Confronted with disasters such as these, many Romans blamed Providence, asking why God allowed Rome to perish now that she had become Christian? They then concluded that he could not be interested in the affairs of this world, when he allowed pagan or heretic barbarians to triumph. It was to fortify their shaken faith that between 440 and 450 Salvian wrote his book. In it he showed that the troubles of his fellow-countrymen were inflicted as a just punishment for their sins, whilst the barbarians achieved victory through their own merits.

No doubt the *De Gubernatione* contains much exaggeration: Salvian always overstates his opinions. It must also be remembered that he was out to justify Providence at all costs, and that he does not pretend to write as a historian. Sulpicius Severus, Paulinus of Nola, Sidonius Apollinaris, none of whom were prejudiced, have left in their letters the portrait of a society which was both polished and upright. Yet I think Salvian's work, declamatory though it be, provides valuable evidence of the deeply rooted causes that brought about the fall of the Empire; and it is this evidence that I propose to try and classify.

Salvian first of all takes note of the military decline of the empire. It was long since the legions had been recruited from amongst the sturdy Italian peasants. Since the formation of a professional army the mass of the people had forgotten the science of arms. At the onset of the invasions, therefore, when the dissolute Roman troops could no longer hold every front, the provincials could not organize themselves in defence of their cities. There were exceptions; Aquileia had

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opposed Maximinian and Rome withstood Alaric ; and Ammianus Marcellinus praised the bravery of the Gaulish soldiers. But it was exceptional to find peoples like the Armoricans and Arverni, who when left to their own devices, valiantly prolonged the struggle against the barbarians. Everywhere else resistance was weak or altogether lacking, because men had forgotten how to fight. For four centuries the peoples of Italy and of the provinces had relied upon mercenaries for their protection, desiring only to be left in the peaceful enjoyment of their accumulated wealth ; and the terrible alarums of the third century had hardly disturbed that peace. 'When the barbarians pitched their tents almost within sight of us all, no one displayed any anxiety, nor were the towns put in a state of defence. So great was our blindness that, though unwilling to perish, we no longer did anything to save ourselves ; on every side heedlessness, weakness and negligence prevailed (VII, 80, 81). The justness of Salvian's censure is evidenced by the fact that, at the moment when the attack on their city was launched, the magistrates of Cologne were actually found in the midst of a banquet.

The imperial army itself no longer resembled the legions of Trajan or Septimius Severus. It was Roman only in name ; the only national elements in it were those recruits, of no great value, who were supplied by the big landowners or raised in the least romanized of the provinces. The bulk of the troops consisted of barbarian levies paid by the emperor to defend the empire against other barbarians. In Europe the Goths were hurled against the Alans, the Alemanni against the Burgundians, the Huns against the Goths. In Africa the Ausurians were only repulsed by the cavalry of the Huns. 'We are reduced', complains Salvian, 'to putting our hope in the Huns' (VII, 39). And these bands enlisted for the Empire were sometimes as formidable as the enemy ; they plundered the provinces they were defending just as if it were enemy country. It was Gainas who ravaged Asia and Thrace, Alaric who sacked all the Illyrian towns ; and one realizes the full meaning of Salvian's lament : 'The soldiers' life is entirely spent in pillage' (III, 50).

The empire was badly governed too. There was no lack of laws to restrain the exactions of officials, but they were ineffective. Corruption was rife from top to bottom, the highest ranks providing the model. 'What are those high offices but robbery ? Certain men whose names I suppress—do not they convert their terms of office into a snatch-and-grab raid ? The greatest robbers of the poor are those set in authority over them !' (IV, 21). The history of Andronicus, the governor of the

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Pentapolis who had to be excommunicated by Synesius, bishop of Cyrene, provides an apt illustration of this passage.

Such conduct is explained, if not excused, by the venality of all offices. At the bottom of the ladder the *officiales* bought their jobs and used the influence thus acquired to recover their costs. The high officials had either to obtain the goodwill of the emperor and his favourites, or provide the masses with feasts and sport; and in order not to lose all they had, they oppressed those under them so as to get back at least the interest on their outlay. 'A few men buy honours, but only at the expense of universal ruin. Could there be anything more dishonourable or wicked? The poor do not buy honours but they have to pay for them; they take no part in the transaction but have to foot the bill; to advertise a few names, the world must be upset, and the affairs of a single individual are allowed to wreck society' (IV, 21). Honest administrators had not entirely disappeared, it is true; but we should not forget that even under Trajan bad governors were to be found in the empire. Now that the central authority had to expend all its force in struggling against the barbarians is it surprising that vigilance was relaxed, and that administrators, sure of impunity in the growing chaos, abused their power?

Finally this ill-protected and ill-governed empire had tremendous need of money. Expenses increased in direct proportion to the growth of luxury in the two courts, and of the hosts of officials. Above all the barbarians had to be paid not to attack the frontiers or else to remain quiet in the provinces assigned to them. The presents formerly distributed by the emperors to the German chieftains bordering on the empire had now become a regular tribute. 'The old Romans made themselves feared, but *we* are afraid; the barbarians paid tribute to them, but it is *we* who now pay the barbarians. The enemy charges us even for the daylight; we have to pay even for life itself. What a fate is ours! To what a state have we been reduced! And we still have to render thanks to the barbarians from whom we have purchased our very existence' (VI, 98). And again: 'The gold we pay over to them we call a voluntary gift. We say that it is a present when it is really the price of our ransom, of our condition—a cruel and wretched one indeed' (VI, 99). The time was past when the Treasury was so rich that it could make grants to towns and individuals. Today it was really hard up: 'Where is the old wealth of Rome? . . . The exchequer is poverty-stricken, and the Treasury reduced to beggary, so much so that we have lost the right of useless and frivolous expenditure' (VI, 43).

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Thus army, administration and money were all exhausted. But Salvian was alarmed by yet another disquieting symptom, less obvious but more formidable—the economic conditions.

To begin with the population was decreasing. Successive waves of invasion, especially at the beginning of the fifth century, had turned huge regions into desert. In the third century, it seems, the barbarians looted chiefly the harvests and herds ; but in the fifth they resorted to massacre on the grand scale. ' Where has not blood flowed ? Where is the ground but heaped up with corpses ? Where cannot quivering torn limbs be seen ? Everywhere the sight of captured cities, the horror of captivity, the shadow of death ' (vi, 89). I mistrust this echo of Virgil¹ rounding off the paragraph so nicely, but the facts are none the less well established. There were many deaths—more than in the other invasions ; and the former inhabitants had not yet been replaced by settlements of barbarians. Salvian records (vii, 53) that roving bands still wandered over Gaul, Spain and Africa, without any attachment to the soil.

But another cause of the decrease in population was the growing reluctance of the Romans to have children. I do not accept at their face value Salvian's remarks on the debauchery which, in his view, had corrupted all classes. I note merely that marriage had ceased to be a sacred institution for perpetuating the ' gens ' and providing the state with soldiers and citizens. One wanted to have just enough children to prevent the patrimony from passing to another family or from being split up. ' It is a pity that if they *must* treat these women as consorts, they should not confine themselves to them as wives. But the more disgusting and detestable thing is that some who have contracted an honourable marriage then take additional consorts who are of servile station, dishonouring the holy sacrament of marriage by vulgar and disreputable cohabitation, not blushing to contract marriages with their serving women, and prostituting the dignity of a noble union with the disreputable commerce of a slave-girl. They are indeed worthy to belong to the same class as the women whom they consider as suitable mates ' (iv, 26). And how strange it is to see the young Arnobius intervening in an affair of this kind, recommending patience and resignation to a young woman ' who had to endure such continual humiliations from her husband that she became at last no better than a common slave '. I do not entirely agree with those who maintain that the régime of one son or two children was universal ; but I would

¹ *Plurima mortis imago. Aen. II, 369.*

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point out that in the *gens Valeria*, for instance, the young St. Melania was an only daughter and that her husband had only one brother. And at a time when Rome needed all the vigour of her stock to assimilate the barbarians, the best families allowed their blood to become impoverished, thus setting an example which the middle classes were only too quick to imitate.

Prosperity in general decreased together with the population. The civil wars and invasions had abolished security and the *pax Romana* : '*in omni enim ferme orbe Romano et pax et securitas non sunt*'. The most prosperous provinces had been raided or occupied by the barbarians : luxuriant Aquitaine, then Spain and lastly Africa, the granary of Rome. So Salvian can regretfully exclaim : ' Our former prosperity has deserted us, our original resources no longer exist, we are now very poor '. The decay of agriculture in the country and of industry in the towns brought about a general collapse of trade in the West. In the second and third centuries trade has prospered throughout the Latin world. To mention Gaul only, the wine-merchants of Lyons, the watermen of the Saône and Rhône were famous. Native traders were numerous and busy on the water-ways and land routes : it was the Gaulish business men who filled the markets of Rome and Italy with cloth and salted goods. The colonies of Greeks and orientals were doubtless important ; but they were confined to a few ports like Marseilles, or to great entrepôts like Lyons. But in the fifth century Gaulish traders were unknown to Salvian ; had they retained any importance there would surely have been somewhere an opportunity of pillorying them. But he speaks only of Syrians. From this I conclude that trade in the West, at any rate in southern Gaul, had almost foundered during the invasions, that henceforth the orientals swallowed up all business without there being any competitors, especially at Marseilles where they were doubtless numerous and well organized. Hailing from provinces that had escaped the scourge of the barbarians, they had kept intact their capital and stock-in-trade, and being unscrupulous men of business they seized the chance of exploiting the West where they had no competitors to fear. ' Just look at the hordes of Syrian merchants occupying most of the towns ! Their whole time is spent in devising trickeries and in telling lies. Words have no meaning for them unless they bring profit to the speaker. So great is their respect for God's law forbidding oaths that they regard perjury as peculiarly profitable ' (iv, 69). Perhaps the old anti-Semitic hatred peeps out here. But all the same the economically enfeebled Western

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Empire was a splendid prize for the business men of Antioch or Alexandria ; one can imagine how readily they seized the opportunity of breaking up many fortunes that were already compromised, of squeezing out what little money remained in the country, and substituting a merciless exploitation for the normal system of profit and exchange.

Finally, and it is here that Salvian was most clear-sighted, this economic malady was complicated by a social crisis.

In an empire already so enfeebled as this, the Romans should have built a united front against the enemy, as they did in the time of the Punic Wars. But class warfare paralysed resistance ; there was no unity even amongst the aristocracy, whose wealth and control of the administration conferred on it the moral leadership of the State. The aristocracy stood to lose most by a victory of the barbarians : at this time when real men were not to be found, it is quite painful to watch the leaders engaged in mutual destruction. When Salvian says that every gentleman (*tous les nobles*) is guilty of homicide, at least in thought, I demur. But we must not forget that Stilicho was murdered at the instigation of the courtesans of Honorius, that it was the intrigues of Aetius which destroyed Count Boniface, and that Valentinian III had Aetius assassinated and was then himself assassinated by Maximus ; and we must admit that there was a measure of truth in Salvian's words : ' All those barbarians ', he said, ' who belong to the same race and live under the same king, are at peace with each other. But the Romans are all embittered against each other ; who is there amongst them that is not jealous of his fellow-citizens ? ' (v, 15). It was these jealousies that brought about palace revolutions, the murders which deprived the empire of its bravest protectors, and the betrayals which opened the way to the barbarians. Was it not Count Boniface himself who invited the barbarians into Africa ?

If the ruling class was divided, so too were the others. The masses were oppressed by the gentry, particularly in respect of taxation. The imposition and collection of taxes were sources of the greatest social injustice, and eventually brought about the enslavement of the middle and lower classes by the gentry.

Salvian says that taxes, instead of being imposed with the consent of the taxpayers, were arbitrarily fixed by the emperor's ministers. ' Two or three persons pass a law which will bring death to many ; a few men in power decide what the unfortunate masses shall pay ' (v, 33). Yet another act of injustice was added to the first ; the high

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officials and big landowners took advantage of their position and wealth to bribe the Treasury officials and thus almost completely evaded the payment of taxes. The 'little men' who had neither enough credit nor any other means of obtaining such favours paid their share in full, nay more, they paid over again for the rich, for the Treasury had to recover from one source what it lost from the other. 'The poor are crippled by payments which should be exacted from the rich; the weakest bear the burden of the strong' (v, 28). This particular grievance must have made a strong impression upon Salvian, for he frequently returns to it. 'How can one describe such robbery and crime!' he says; 'at a time when the Roman Empire is dead, or, in those parts which appear to be alive, expiring, when it has been strangled by taxation as if murdered by bandits—at such a time do most rich people pass on to the poor the payment of their taxes!' (iv, 30)

The 'little men' had no share in the distribution of taxation; still less were they allowed a voice in discussion or appeals. It made no difference whether it was a question of ordinary taxation or of the special levies made necessary by the wars. One class made the decision, the other was good only for paying. 'The poor pay for all, but they do not know in the least what the tax is for nor its assessment. Who is allowed to inquire into the reason for payment, or to verify the amount due from him?' (v, 32). And Salvian charges the emperor's court with increasing taxation unreasonably: 'The big men decide upon increases which only the poor are obliged to pay' (v, 29).

One might well suppose that officials in the capitals, ill-informed of conditions in the provinces, did not appreciate the ills of their fellow countrymen. But the senators who lived on their own estates behaved in precisely the same way. They too tried to economize and thrust upon the 'little men' the costs of banquets and receptions. When the retinue of a prince came with some message for these great persons, they voted extraordinary honours. But who paid the cost of entertaining these guests? Not the gentlefolk who started the performance but the 'little men' of the town. 'The big men are not touched at all by the expenditure they decree' (v, 17).

Below the senators were the Curiales of towns and municipalities—a little aristocracy modelled on the big one. Theirs was the thankless task of apportioning and collecting the taxes. No doubt they often had bad debts, for defaulters, whether such deliberately or of necessity, were not uncommon. Moreover the *exactores* nominated by the Curia readily adopted the forcible measures which the public authority

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allowed them for the purpose of opening the purses of recalcitrant taxpayers. This was quite enough to arouse vehement protests, sometimes justified by an abuse of authority. 'So many *Curiales*, so many tyrants', says Salvian laconically (v, 18).

On the other hand, those Senators and *Curiales* who abused their power and thrust off their burdens upon the backs of the lower classes, conspired to hold up concessions *en route* and to confiscate them for their own profit. 'If sometimes, as occurred recently, the government wishes to relieve exhausted cities, or to lighten the weight of taxation, the rich at once share up amongst themselves alone the benefits of the decree, and none thinks of the poor' (v, 35). The procedure was quite simple; they postponed from day to day the payment of their taxes; the tax-collectors did not dare to press them for fear of their influence at court and with the governor; and when the emperor issued his amnesty for all taxes not yet raised, they found themselves free; whereas the 'little men' who had had to pay on the nail derived no benefit from the measure. Plainly this did not always happen. People like Symmachus paid their taxes punctually and without a word of complaint, when the emperor needed money for his troops. But is it rash to suppose that the loyalty of many rich people stopped short at their purse?

Yet strictly speaking none of these ailments was mortal. In spite of wars the provinces rose quickly from their ruins. (Aquitaine, for instance, so often overrun since 406, was still like a paradise according to Salvian's own evidence (vii, 8). If soldiers were hard to find within the empire, the barbarians willingly fought for it, and the victories of Stilicho and Aetius added new lustre to the pages of Rome's military history. The administrative machine did function, efficiently or otherwise; and in short, if we look in vain for a Verres, we do find several uncorrupt governors. Barbarian settlers took the place of the former inhabitants in the devastated regions. As for finance, the Empire of the East was to show that a State can live from hand to mouth for centuries—and not ingloriously. And last of all, even in its darkest hours old Rome always produced remarkable men, Romans by birth or adoption such as Stilicho, Constantius, Aetius, Majorian. Nevertheless class warfare was responsible for the creation of two distinct groups of population in the empire; on the one side the rich and privileged gentry and on the other the 'humiliores', the 'tenuiores', who were being gradually deprived of all their freedom; and that was a very serious state of affairs.

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The chief merit of Salvian, I consider, is that he recognized quite clearly the disappearance both of that primitive equality which restrained all beneath the emperor's sway, and also of that middle class which the emperors had tried to restore ; and that he saw the heavy hand of the big man upon the little, at the expense of the authority of the State. It was the middle classes which suffered most from civil and foreign wars. Small proprietors who had not enough capital often found themselves faced with ruin. The rich took advantage of their influence and money to buy up cheap those properties whose owners were embarrassed. By force or fraud they seized the land they had held as surety for a loan made at an extortionate rate of interest ; and they extended their ' latifundia ' without anyone, even the courts of governors, daring to oppose their abuse of power. It was a repetition throughout the empire of precisely the same phenomenon as that which, in the last centuries of the republic, had ruined the free peasantry of Italy. ' A short time ago ', narrates Salvian, ' yielding to the entreaties of a poor man, I went and begged one of the big men not to deprive an unfortunate person in dire straits of his fortune and all his possessions, not to take possession of his last resources, of the last support left him in his poverty. But the big man, consumed by avarice and inflamed by a fierce desire, already devouring his prey in anticipation, cast black looks at me, as if he thought that I might deprive him of what he had not succeeded in taking from that other, and replied that it was impossible for him to do what I asked [since he was acting in accordance with a sacred command or decree that he simply could not overlook. When I asked the reason, he said most emphatically, brooking no contradiction : " I have made a vow to seize that man's property. Consider then whether I could or should fail to accomplish what I have sworn by the name of Christ ". Then I left him, having heard the reason for his most pious crime ; for what else could I do, when his action was shown to be so just and sacred !]'² (IV, 74-75).

There were cases of resistance. These small holders, ruined and despoiled both by the government and by their powerful neighbours, made up their minds that the honour of Roman citizenship could be paid for too highly, and that it was desirable rather to change a social system that pressed so hardly upon them. Accordingly they did not hesitate to take refuge amongst the barbarians, in order to escape oppression. ' To them the enemy is kinder than is the tax-collector ; they go

² I have completed the story, adding, in square brackets, the conclusion, based upon Eva M. Sanford's translation (Columbia Univ. Press, 1930, 125).

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over to the enemy to escape from the violence of the treasury'. Formerly the roads were thronged with refugees, fleeing before an invasion; now on the other hand 'not only are our comrades unwilling to return to us from the barbarians, but they even leave us to take refuge with them'. Nevertheless I fancy these cases must have been quite exceptional; nowhere do we hear of mass migrations from still Roman provinces to the barbarians; moreover the serfs who rejoined Gainas or Alaric were impelled by the same motives as the slaves who found their way into the legions of Pompey. But it was an alarming symptom, for it proved that patriotism was weakening, and above all it was to be observed amongst the leisured classes as well as amongst the poor, amongst those of sufficient culture to appreciate the advantages of Latin civilization. These 'petits bourgeois', not rich enough to influence those in authority, nor yet poor enough to be overlooked, but sufficiently intelligent soon to grow tired of oppression, accepted the rule of barbarian 'reguli', amongst whom the inquisition of the Treasury was no longer to be feared. 'They sought amongst the barbarians the comforts of Roman civilization, for they could no longer put up with the inhuman barbarity of the Romans'.

I do not suggest that the barbarians were gladly welcomed everywhere, nor that they treated the Roman inhabitants kindly. Salvian himself does not hold them up as paragons of virtue: 'The Goths are treacherous, the Franks liars, the Saxons cruel' (vii, 64); more than that he adds that it involved no slight sacrifice to live side by side with people whose ways were so different, whose language was so uncouth, and whose bodies and clothes smelt so unpleasant. However, one took them as they were, and after the first shock of contact one got used to them, more than one did to the tax-collectors; one left the 'City of Rome' without undue regret. These refugees from the empire 'preferred a free life under the semblance of captivity to a captivity which masqueraded as freedom. Accordingly that name of Roman citizen, once so famous and costly, is now shunned and repudiated, a common and almost a hateful thing' (v, 22). Perhaps the empire's mortal wound was in fact the discovery that one could live outside it, that the barbarians allowed their subjects to enjoy a certain freedom, that they respected the language, customs and habits of an earlier epoch—the essentials in short of Latin civilization.

However it was only a minority which thus passed over to the barbarians. In spite of everything the subjects of the empire retained a sort of national pride; rich or poor, they loathed all barbarians,

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whether pagan or Arian. But many of them tried without leaving the State to throw off oppression by means of revolt. The Bagaudae, as they were called, were peasants exasperated by misery and threatened with loss of their liberty. 'We call them rebels; we have driven them to crime. What is it that has created the Bagaudae if not our own iniquities, if not the dishonesty of the rulers, their decrees of outlawry, and the exactions of men who have turned the collection of taxes into a regular source of private income and have plundered the Treasury' (v, 24, 25). The Bagaudae were joined by escaped slaves and by the discontented of all classes; they formed bands of brigands who looted and massacred the rich and the officials. It was not easy to suppress them, for they could count on many sympathizers amongst the people; those who had not the courage to join them gave them secret support. To oppose these peasant bands it was necessary to send for the generals and armies which were so sorely needed at the front.

But these revolts still remained exceptional. The masses of the population resigned themselves to their fate and passed by slow stages into the ranks of the gentlefolks' retainers. The gradual disappearance of the small freeholders who were absorbed by the estates of the big landowners—this was for Salvian the most obvious proof of the collapse of the empire. All these individuals, oppressed and abandoned by the State, sought refuge under the patronage of the rich; they formed most of the recruits of the class of 'coloni'.

Salvian draws a clear distinction between two classes of 'coloni'. There were first those who had lost all their fortune. To pay their debts, and more often their arrears of taxation, they had had to sell their possessions, or else the tax-collectors had seized their land and movable property. No doubt the proceeds of the sale had sufficed to extinguish their debt, for they had remained at liberty. But, driven thus from their inheritance, without resources, these peasants had hired themselves out to their neighbour, the big landowner. He had not hesitated to take these free workers into his service; were they not once farmers and therefore experienced? once landowners and therefore attached to the land, if given a firm footing there? He exacted a rent from them and gave them leave to exploit a few acres of his vast possessions, granting a lease for a more or less lengthy term of years. And here we have these former farmers, once their own masters, now become tenants of the rich, farming land which is not theirs, subjected to the payment of dues. Doubtless the landlords undertook not to give them notice, nor to sell the land without agreeing to let them remain on it. But by the same contract

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they were tied to the land. They could not leave it, nor could their children who came after them ; they had alienated their freedom.

The condition of others was less desperate. They had not waited to become impoverished serfs. They had never allowed themselves to accept calmly the prospect of eviction. With the object of evading simultaneously both the encroachments of the rich and the attentions of the Treasury, they placed themselves immediately under the protection of one of the ' majores ' of the country, and became, so to speak, his ' dediticii '. Thereby, while submitting to the superintendence of a master and making over to him the ownership of their property, they at least retained its usufruct for life, and were assured of not being evicted, since the emperors forbade the tax-collectors to alienate the ' coloni ' from their land even if they were in debt to the State. Becoming thus clients of the rich, they still continued to farm their land, to which they thus became attached ; and instead of the land-tax which now became payable by their landlord, the legal proprietor, they had nothing to pay but his rent and the State poll-tax. Nevertheless the result was the same in either case—the absorption of small estates in the large ones. The sons of the ' coloni ', in the second and third generation, in spite of legal protection, often lost the enjoyment of the family acres, and became in fact something not far removed from feudal (*corvéables*) serfs at the mercy of the landowner. ' Those whom he welcomed as independent strangers he now begins to look upon as his own men ; those who are free he converts into slaves ' (v, 45). The law took great care to draw a distinction between *colonus* and slave ; but in actual fact the difference between a servile and colonial tenure was eventually lost in the common subjection of both classes to their master.³ The latter exacted precisely the same services from each, and neither had any redress. ' This law appears to protect the poor, but it despoils them ; the big men protect the less fortunate ones, but this protection increases their misfortune. That the fathers may obtain it, it is necessary for the sons to lose their inheritance ' (v, 37). After the death of their father the children, in consequence of this legal position, no longer possess their little farm and are exhausted by the performance of feudal services '—*corvées agricoles*.

Thus one watches the formation of two strata of population. On the top is the landowner, the lord one might almost call him now, below is the mass of half-free serfs, liable to arbitrary forced services.

³ It required continual intervention on the part of the emperors to prevent the landowners from arbitrarily evicting the *colonus* from his estate. Cod. Theod., XIII, 10, 13.

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The peasants who parted with their liberty escape the direct rule of the State only to fall into the hands of an individual ; it is the beginning of the Middle Ages and feudalism.

I will not deny that this picture may be very incomplete ; and it must be admitted that Salvian's book suggests these ideas rather than states them coherently. Salvian refers neither to the bad organization of the central authority in the empire, nor to the difficulties which were encountered in the execution of that authority. It is strange, too, that the invasions do not greatly shock him and that he makes no serious attempt to account for them.

In conclusion I should like to show that Salvian, for all his tirades against Roman society and the praises he bestows somewhat too lavishly upon the barbarians, remained at heart passionately Roman. Roman he was not only by speech and education but also in his prejudices. He regards slavery as necessary, for example, and looks upon all slaves as necessarily corrupt. But it was perhaps, above all, because he realized the material causes of the fall of the empire, that he kept in his heart a real love for the *Res Romana* and was bitterly grieved by its collapse. He was saturated with memories of Ancient Rome, its glories and virtues. He recalled with regret the Fabii, Fabricii, Cincinnati who despised wealth but served the State disinterestedly. 'The magistrates were poor in those days, but they made the Republic wealthy' (I, 10). And it was in moving terms that he recounted the long period of prosperity which the empire had enjoyed. 'The Roman world, like a well-developed body, had healthy members ; the public granaries became too small, so universal was the abundance. The citizens of all the towns saw riches and treasure flowing in towards them. The authority of religion could hardly restrain the relaxation of morals. No one considered the cost of the games to the State, for the expense to each was negligible. The Republic looked round to see where it might sustain a loss, for it no longer knew what to do with its resources'. To me the refrain of these regrets seems more sincere than the anathemas broadcast elsewhere by Salvian. They are those same regrets one finds voiced by all the Roman clergy, by Latins like Saint Jerome or Saint Augustine, and by Hellenes like Synesius of Cyrene. They show in any case that it was only with grief and despair that, on the eve of the last invasions, the people of the time admitted the ruin of the Roman world.

The translator is indebted to Mr C. E. Stevens for kindly checking quotations with the original Latin and for adding references to them.

Notes and News

LONG MEG (PLATES I-II)

The stone circle called Long Meg and her Daughters, in the parish of Little Salkeld, Cumberland, is well known to most students of British archaeology. It is one of the major monuments of its kind in Britain, and one of the most perfect. The present note, however, is concerned not with Long Meg, but with another circle, now destroyed, whose site can be recovered to within a few yards; and not so much with the circle itself, evidently a minor monument of no great outstanding interest, as with the method by which its position was determined.

The one and only reference in literature to the second circle is contained in Stukeley's *Iter Boreale (Itinerarium Curiosum, II, 1776, p. 47)*. Describing Long Meg, he says: — 'Full southwest from this work, in the next inclosure and higher ground is another circle of lesser stones, in number 20: the circle is 50 foot diameter; and at some distance above it is another stone placed regarding it, as Meg does the larger circle'. This second, smaller, circle is shown in his 'View of the Celtic Temple called Long Meg, Aug. 16 1725'. A photographic copy of this was made at the Ordnance Survey about ten years ago, and is reproduced here (PLATE I), together with a photograph taken by the writer from exactly the same spot on 20 May 1934, under very unfavourable climatic conditions. Now it will be observed that immediately behind (to the left of) the horseman in the foreground of Stukeley's drawing there are three stones of the circle, the third (left-most) being the tallest. In the photograph these are the three on the right-hand side, the tallest being that in the middle of the picture. Directly above this on Stukeley's drawing is the missing circle; directly above it on the photograph there can just be distinguished the roof of an outlying farm-building. This latter, in all probability, marks the site where the circle formerly stood. The direction has been proved to be correct, and it agrees also in being on slightly higher ground. Beyond (sw of) these farm-buildings the ground soon begins to fall and anything situated there would be invisible from Stukeley's viewpoint. It seems likely that the stones composing the circle were used

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up to construct either the farm-building or the adjacent ' dykes ' (dry stone walls). Perhaps local investigations might throw light on this point. It is quite possible that the stones might, like Long Meg herself and those of the third and still surviving (Maughanby) circle to the NW, have had cup-and-ring engravings ; and that a close examination of the larger stones in the dykes might be worth while.

These facts were only ascertained by a close inspection of the ground with the photographic copy of Stukeley's drawing in hand for constant reference. By this method it was possible to plot on the 6-inch Ordnance map the approximate position of the lost circle. This could not have been done with the map only, without field-work. There is nothing on the map to enable one to identify the position of individual stones in the circle ; and the exact limits of visibility are always uncertain.

I used the same method at Avebury with equally good results, and would recommend it to others who wish to make discoveries. Stukeley was a faithful recorder of facts and much has vanished since his day.

O.G.S.C.

PREHISTORIC ARCHAEOLOGY IN NORTHERN IRELAND

Recent years have witnessed a considerable revival and expansion of interest in the prehistoric cultures of northeastern Ireland, whose rich flint industries have too long been regarded as a hunting ground for private collections and museums. In 1932 the Belfast Natural History and Philosophical Society organized the excavation of a chambered horned cairn at Goward, co. Down (ANTIQUITY, June 1933, p. 122) with the object of training students of Queen's University, Belfast, in modern methods of investigation. In 1933, as a result of recommendations from local archaeologists inspired by attending the meeting of the International Congress of Prehistoric and Protohistoric Sciences (London, 1932) the Belfast Corporation, through the Museum and Art Galleries Committee, made a grant of £50 in aid of prehistoric research in Northern Ireland. The grant has since been renewed for 1934 : it is administered by the Belfast Municipal Museum in co-operation with an advisory research council ; and the grant is open, under certain conditions, to all accredited archaeologists.

Already definite results have been achieved in several fields of research. During 1933 important finds of the Early Iron Age, including a female clay figurine, were made by Dr Wilfrid Jackson in chalk caves

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at Ballintoy, on the north coast of co. Antrim (*Antiq. Journ.* April 1934, p. 180) while a horned cairn at Ballyalton, co. Down, excavated by O. Davies and E. E. Evans, yielded a wealth of flint tools and types of neolithic pottery new to Ireland (*Man*, June 1934, 111). Mr Davies also examined a megalithic monument at Largalinn, co. Fermanagh, which he describes as being partially rock-cut and having a small paved forecourt.

Dr Jackson continued his work at Ballintoy in June 1934, and Messrs Davies and Evans investigated a single-chambered grave at Clonlum, co. Armagh, and also a horned cairn on Browndod Hill, co. Antrim. Miss Gaffikin has excavated a hut site in a rath near Saintfield, co. Down and has obtained interesting information on the structural lay-out of the fort itself. Mr Blake Whelan is pursuing his work on the Mesolithic industries with results that promise to be of the greatest value. Attention is also being given to sand-hill and raised beach settlements in the hope of finding direct stratigraphical evidence of the culture sequence in the north of Ireland.

It is hoped that work on these and other sites ranging from the Mesolithic to the Early Iron Age will be continued in 1935. The chief finds will be exhibited at the Belfast Museum, and full reports will appear in the Irish Journals from time to time. It is clear that the close relations long existing between northeastern Ireland and western Britain give this corner of the country special significance as a cultural gateway, and new light must be thrown on many problems of culture-diffusion between the two islands. It may be added that as a result of the work outlined above a new interest in antiquity is stirring in many parts of the countryside, and discoveries of value are being reported to the authorities with more frequency than in the past. Miss Gaffikin's important work on the Inventory of Ancient Monuments in Northern Ireland also benefits from the widespread interest the excavations have aroused.

E. E. EVANS.

THE ERUPTION OF VESUVIUS, A.D. 79 (PLATES III-IV)

The stratification of the volcanic matter that was thrown up by Vesuvius in the famous eruption of 24-25 August, A.D. 79, is at present clearly discernible near the so-called 'Villa of the Mysteries' at Pompeii. It is possible, even without any technical knowledge of volcanology, to learn from Mr Crawford's photographs (PLATES III-IV) something about the sequence of events on those two days and to bring the evidence of

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the strata into line with the eyewitness' account of the eruption which is preserved in the letters of the Younger Pliny.

The eruption started on 24 August and lasted till the next day. Pliny's description is found in two well-known letters addressed to Tacitus, one (VI, 16) describing the events which led up to the death of his uncle at Stabiae and covering the day of 24 August and the night of 24-25 August, the other (VI, 20) giving his own experiences at Misenum during the night of 24-25 August and the day of 25 August. The letters thus give, and were designed to give, a complete account of the whole eruption. The various phases, so far as they can be gathered from Pliny, are as follows :—

(1) During the afternoon of 24 August a cloud of unusual shape and size appeared issuing from Vesuvius. Pliny likened it to a pine—a simile whose aptness is immediately striking to all who have seen Vesuvius in eruption.

(2) As the Elder Pliny approached the volcano by sea, hot ashes and pumice-stone fell on the ship, and during the night of 24-25 August, which he spent at Stabiae, the ashes and pumice fell to such a depth outside his bedroom door that he had to be wakened for fear that his escape would be cut off.

(3) Late in the night, the fall of ash and pumice abated somewhat, but violent earthquake shocks were felt which endangered the stability of the villa at Stabiae where the Elder Pliny was. The same shocks were felt by the Younger Pliny at Misenum, and, indeed, were so violent that carts would not remain still, though loaded with stones.

(4) Early on 25 August, a black cloud descended to earth and with it came a renewal of the falling ash (pumice is not mentioned on this occasion). Later in the day, the cloud disappeared, and when light returned, everything at Misenum was found to be covered with ash.

We turn from the evidence of the pen to that of the spade. Mr Crawford's photographs show, starting from the bottom, the following main strata :—

(A) A layer of dark volcanic ash, speckled with white pumice-stones about the size of walnuts. This layer, of which only the top portion is visible in the photographs, varies from 8 to 10 feet in depth.

(B) A layer of grey volcanic ash (about 6 or 7 feet in depth), comparatively free from pumice-stones.

(C) A number of narrow strata, composed of various kinds of volcanic matter, and covering, in all, a depth of 2 or 3 feet.

If we equate these strata with the phases of the eruption described

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by Pliny, we readily see that stratum A corresponds to phase 2 and stratum B to phase 4. At Pompeii the upper parts of some buildings, which had remained standing during the shower of ash and pumice (stratum A), fell during the later rain of ash (stratum B) and have been found 10 feet above the original ground level. It seems reasonable to suppose that these fallen buildings were thrown down by the earthquake shocks of Pliny's third phase.

We may thus reconstruct the course of events. The ash and pumice was erupted to a great height, forming a pine-shaped cloud. The pumice and heavier dust fell first and rained down to a depth of 8 or 10 feet over Pompeii, the valley of the Sarno, and the adjoining portion of the Bay of Naples (striking Pliny's ship, and also forming stratum A). The lighter ash, reinforced probably by further eruptions, hung about longer in the air, and some of it was carried by the wind for a considerable way—even as far as Misenum (eyewitnesses state that in the eruption of 1906 ash was carried in the same way as far as Capri, which is about the same distance as Misenum from the volcano). While it was descending (stratum B), the earthquake shocks were violent enough to throw down walls which still protruded above the lapilli and ash of stratum A.

What of the narrow strata at the top (see PLATES, and C, above) composed of alternate layers of ash and pumice, to which there is nothing corresponding in Pliny's account? It is most likely that they represent a local phenomenon—showers of lapilli which fell late on 25 August when the force of the eruption was already diminishing—and that they find no place in Pliny's account simply because, being heavy, they did not reach to Misenum where he was.

R. C. CARRINGTON.

HUMAN SACRIFICE IN ANTIQUITY

The Rev. MICHAEL ADLER writes from the Central Synagogue :—

' May I be allowed to enter a most emphatic protest against the statement of your contributor in the June number¹ to the effect that human sacrifices were " quite common " among the Jews in Bible times and that there was " divine authority " for this foul practice. These assertions reveal a complete misunderstanding both of the text of Scripture and of the spirit of the Mosaic laws.

¹ ANTIQUITY, June 1934, p. 225.—EDITOR.

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‘ The teaching of the lawgiver of Israel upon this subject is definitely set forth in several passages in the Bible. “ And thou shalt not give any of thy seed to set them apart to Molech, neither shalt thou profane the name of thy God : I am the Lord . . . for all these abominations have the men of the land done, that were before you and the land was defiled . . . Therefore shall ye keep my charge that ye do not any of these abominable customs which were done before you, and that ye defile not yourselves therein : I am the Lord your God ”.’ (LEVITICUS, XVIII, 21, 27, 30). Again in DEUTERONOMY, XII, 31, “ Thou shalt not do so unto the Lord thy God : for every abomination to the Lord, which he hateth, have they done unto their gods : for even their sons and their daughters do they burn in the fire to their gods ”.

‘ These injunctions make it perfectly clear that in no place can evidence be found to show that “ divine authority ” was given to this abominable usage of the heathen. Occasional disobedience to the Law of God only emphasizes the utter repulsion with which human sacrifice was regarded by the people of Israel. The Prophets likewise shudder at this hideous aberration of men’s sense of worship and denounce it in unmeasured terms. It is due to the prophetic teaching that the name GE HINNOM, the valley where the wicked kings practised this horrible rite, became a synonym for “ Hell ”.

‘ Your contributor supports his views by quoting LEVITICUS, XXVII, 28, 29 as the source of the “ divine authority ” for the custom. It is only by a perverse rendering of the text that such an utterly false declaration can be possible. The passage in LEVITICUS has no connection whatever with the idea of human sacrifice but speaks of the *Cherem* or devoted thing or ban. There were three varieties of the ban, of differing degrees of stringency, (—for full details, see Chief Rabbi, Dr Hertz, Commentary, *i.e.*)—“ The reference here is to the justice-ban : in other words, to the judicial sentence by the proper authorities on such malefactors as the idolater and the blasphemer ” (Kennedy, *i.e.*).

‘ It is a most reprehensible procedure to misinterpret Biblical texts in order to support erroneous opinions—and more especially at the present time when so many vile accusations are being levelled against the Jewish people by those who seek to do them harm ’.

The passage in question was written by the Editor, and arose out

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of a reference to a possible (but doubtful) survival of human sacrifice in Celtic lands down into Christian times. So far from wishing to do harm to the Jewish people I wished rather to show that the rite of human sacrifice was once practised by *many* peoples who are now civilized, including the former inhabitants of these islands. Mr Adler unknowingly attributes to me motives which I was very far from having ; I do not belong to the camp of the anti-Semites. I can see now, however, that the passage to which Mr Adler objects might quite reasonably be misinterpreted as evidence of anti-Semitism, and I regret therefore that I did not forestall any possibility of any such misinterpretation by a definite statement of impartiality.

I submit, however, that the passage most complained of (LEVITICUS, XXVII, 28, 29), though it may be explained away by the learned, *does* convey to the ordinary reader the impression that human sacrifice was divinely authorized. Here it is, so that readers may judge for themselves :—‘ Notwithstanding no devoted thing, that a man shall devote unto the Lord of all that he hath, *both of man and beast*, and of the field of his possession, shall be sold or redeemed : every devoted thing is most holy unto the Lord. None devoted, which shall be devoted of men, shall be redeemed ; but *shall surely be put to death*’ (our italics).

Mr Adler does not refer to the story of Jephthah’s daughter, which is a clear case of human sacrifice, belonging to a ritual pattern common in the East, though doubtless far older than Israel’s occupation of Palestine. The point is that this story is told without comment.

I am also accused of misunderstanding the ‘ spirit of the Mosaic laws’. To me, and I think to most people, those laws are utterly repugnant. Let me quote from a recent writer on the subject,² who describes the Babylonian origin of the Pentateuch.

‘ . . . The additions [to the Code of Hammurabi] of the Hebrew legislators were almost untirely of a theological character. The basic ideas of the Hammurabi Code are civil right and solid justice ; and, considering the times and the circumstances, these are very well realized by the Code. The king makes much of his devotion to the gods and the blessings they have bestowed upon him ; but theology is rigidly excluded from the Code itself . . . In the Pentateuch, on the other hand, the theological interest is paramount. The principle of religious persecution is introduced from the very first, being inculcated even in the Book of

² Chilperic Edwards, *The World’s Earliest Laws* (*The Thinker’s Library*, No. 43), Watts, 1934, pp. 132 ff.

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the Covenant ; whereas religious persecution was entirely unknown in Babylonia, not only in the Code of Hammurabi, but throughout the whole range of cuneiform literature, as far as we are acquainted with it at present. NUMBERS, xxxi, 17-24, is a typical instance of the ideal Pentateuchal combination of bloodthirstiness and ceremonial zeal ; and one of the objects of the completed Torah is the establishment of a theological reign of terror. The same penalty is prescribed for petty infractions of ritual as for the gravest crimes ; and the *Priests' Code* is a wearisome liturgy of " that soul shall be cut off from his people ". Unauthorized compounding of oil or incense is punishable with death (EXODUS, xxx, 33, 38), so is neglect of the Passover (NUMBERS, ix, 13), Sabbath-breaking (EXODUS, xxxv, 2), or even doing " aught with an high hand " (NUMBERS, xv, 30). The fierce and senseless intolerance of the Laws of Moses forms a significant contrast to the judicial dignity of the Laws of Hammurabi, which imply " a more advanced state of civilization and morality than was to be found in the kingdoms of Israel and Judah ".

I have no racial animus whatever against the Jewish people ; but I do resent having their early experiments in theocracy recited for edification, just as I object to glorifications of medieval Christian experiments in the same sphere.

In the original note it was stated that human sacrifice is now illegal in various countries where it was formerly practised, including India. That instances still occur is shown by the following report in *The Times* of 18 July, p. 13.

'The Session Judge of Bhagalpur (Bihar) has sentenced a Moslem, Sheikh Hanaf, to transportation for life for the murder of his only son, aged four, sacrificed in the name of God and the Prophet.

'In February last the man took the boy to a mosque after bathing and feeding him. There both said their prayers together, after which the man took the boy to an outer room, put him in the position in which animals are sacrificed at Bakr-Id, and cut his throat. Before the deed he kept his purpose secret. After it he stood in the mosque courtyard and shouted that he had sacrificed his son in the name of God and the Prophet, and that the Moslems should see to the funeral rites as he was now a fakir. Those who heard him found the body covered with a cloth, and handed him over to the police.

'His statement, persisted in throughout, was that he had not murdered but sacrificed (*korban kar dia*). After the earthquake he realized the powers of God, had devoted himself to prayers, had prayed for a state of *fakiri* (religious mendicancy), and heard the voice of God within him promise this if he could sacrifice his only son'.

O. G. S. CRAWFORD.

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CURRENCY-BARS AGAIN*.

Mr A. M. HOCART writes :—‘ Mr Reginald A. Smith asserts that certain bars are currency bars. Mr E. Wyndham Hulme declares they are unfinished swords (ANTIQUITY, 1933, VII, 61 and 210). Are the two views necessarily inconsistent? The Azande of the Sudan have ‘ spears which have not been beaten into weapons, but are being stored by a man as bride-wealth for his son’s marriage ’ (E. E. Evans-Pritchard in *Africa*, VI, 177). May not the ancient Britons have left swords unfinished to use for barter or ceremonial? There is, as a matter of fact, no evidence, and I only suggest this possibility to point the moral. Zoologists base their palaeontology on the study of living forms. Archaeologists still claim complete autonomy from the study of living cultures. The result is constant controversies, such as the present one, which would never arise if a study of living forms preceded that of the fossils ’.

Mr A. M. Hocart’s point is a thoroughly sound one, and one that we have emphasized over and over again, both in these columns and elsewhere. Archaeology that is not based upon some personal acquaintance with living communities in a primitive state of culture is a dry, arid, academic thing, of little value to any one except a museum curator. But the cause, in this country, has organizational roots. The gap will not be bridged so long as the societies concerned pursue a policy of rigid exclusiveness. In this, as in so much else, the late General Pitt-Rivers was the shining exemplar.

On the other hand the attention of anthropologists has, we think, been concentrated far too much upon social and religious abstractions, to the exclusion of the material culture upon which they are based.

THE NOMORI OF SIERRA LEONE (PLATES V–VII)

The preparation of forest and other land for agricultural purposes has, in the past, led to the discovery of the stone figures shown in the accompanying illustrations.

This type of stone sculpture is not confined to the Protectorate of Sierra Leone, specimens having been received by at least one museum on the Continent from other parts of tropical West Africa. The British Museum owns, perhaps, the most comprehensive collection in the world.

* This must be their last appearance, for the present at any rate.—EDITOR.

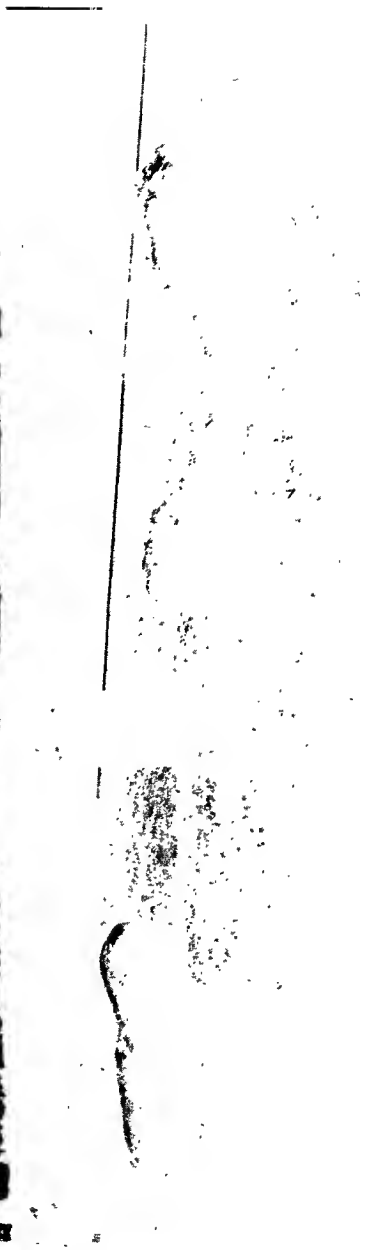
PLATE I

A View of the Bathi Temple called long May Aug. 16. 1725.



SITUKELEY'S VIEW OF 'LONG MEG', 16 AUGUST 1725 (See p. 328)

PLATE II



LONG MEG, PHOTOGRAPHED FROM SULLIVAN'S VILW-POINT, 20 May 1934 (See p. 328)
Ph. O. G. S. Crawford

PLATE III



STRATIFICATION NEAR THE VILLA OF THE MYSURUS, POMPEII (See p. 316)

Ph. O. G. S. Crawford

PLATE IV



STRATIFICATION NEAR THE 'VILLA OF THE MYSTERIES', POMPEII (See p. 330)
Ph. O. G. S. Crawford

PLATE V



STONE FIGURES, SIERRA LEONE. (See p. 336)

PLATE VI



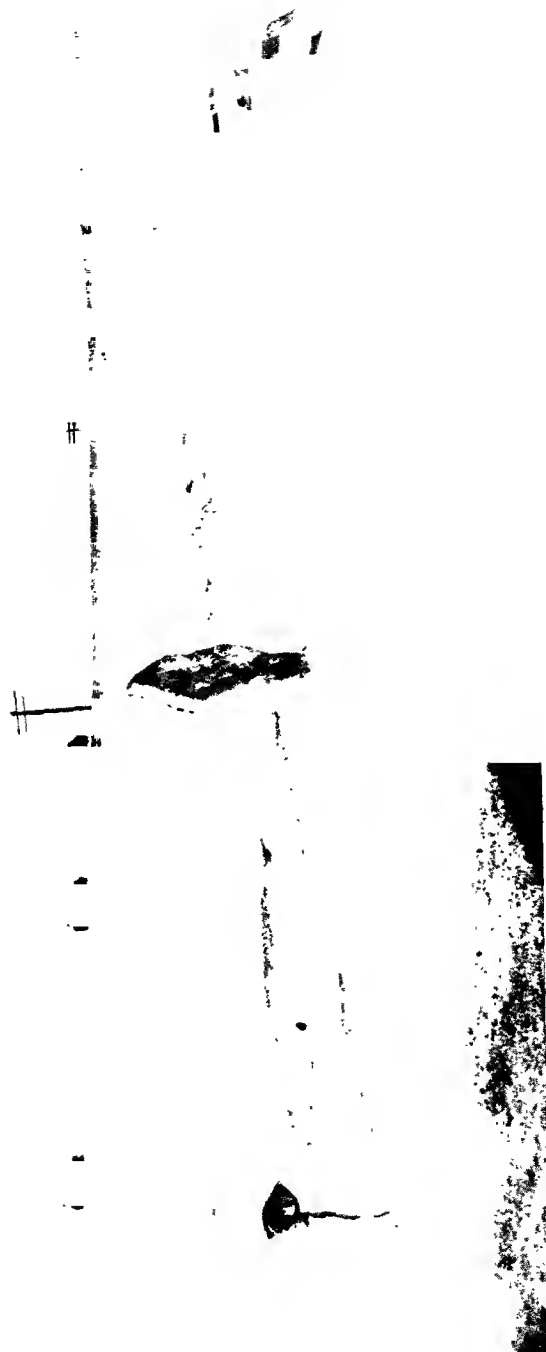
STONE FIGURINE, SILRRE LEONE (See p. 337)

PLATE VII



MEDICINE MAN, WITH 'LEARNING BOY', SILERRA LEONI (See p. 337)

PLATE VIII



THE KENNET AVENUE, AVEBURY, LOOKING SOUTHEAST DURING EXCAVATIONS, 11 JULY 1934 (See p. 314)
Ph. O. G. S. Crawford

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Two heads in my group (PLATE V) are believed to be the largest of the kind. They are very heavy, almost life-size, and are made of steatite. One of them has a calm contemplative face turned upward, a ring adorns the nose, the moustache is refined, the ears are small, and a rope encircles the head. The nose and lips are negroid in type.

With regard to the age of these figures nothing definite is known. No light has been shed on the race of men represented by the heads produced by the hands of an unknown negro (?) sculptor.

Tribal wars in the past, disease, migration, and famine have rendered continuous and accurate mental record impossible of achievement. From their shape it may be assumed that two of the heads illustrated were carved from the stone in the side of a cave and then cut off at the neck (PLATE V). The work might be done in secret, or, possibly, the sculptor found by experience that it was easier to work in a standing position, and finding suitable material in a cave he worked on it there, the shade of the cave being preferable to the heat of a tropical sun.

My African friends have told me that the statues have been inherited by them, and in every case the figure had been found when preparing new land for farming. As to their origin and age, they know nothing. How could they? What do we know? We can but conjecture.

Nomori is the name given to the figures by the Mende people; 'Nu' or 'No' meaning a person, and 'Mori' or 'Moli' signifying to ask a question, based on the belief that as there are good and bad human beings so there are good and bad Nomoris, and one has only to ask the good or bad spirit, as the case may be, resident in the respective images for the request to be granted. Nevertheless, though the Nomori is venerated for its supernatural powers and the good luck it is supposed to bring (being placed, for example, in a rice field to assure good crops to the owner), it may also receive a sound flogging from time to time to make it steal rice plants from a neighbouring farm to plant in that of its master! Generally speaking, however, there is a firm belief in the supernatural powers of the Nomori, and the Mahen Yafe, Chiefs' Devils, are the most dreaded of all. The figure between the two heads in the group (PLATE V) is believed to be the abode of an evil spirit who will help bad men and women to be successful in whatever wickedness they may care to excel. Just another way of believing in a good God, and a malevolent Satan.

The recognized medium of approach is the 'medicine man', one of whom, with his 'learning boy', is seen in PLATE VII. Both very

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intelligent men, a not unknown characteristic of most 'medicine men'. By the way, this term does not refer to a general practitioner or a surgeon. 'Medicine' is the title given to a man or woman believed to have the power of communicating with the spirits of other worlds; they may also be 'doctors' of the body as well as of the mind.

It is interesting to note that with these fascinating examples of ancient sculpture are found bracelets of iron and brass. The iron bracelets were certainly manufactured from the iron ore of the country by the blacksmith of old. The brass ornaments may have crossed the desert from Egypt. They are also used as 'medicine'.

WILLIAM ADDISON.

THE BATTLE OF BRUNANBURH

In the year 937 Athelstan, king of England, 'inflicted a momentous defeat on the allied hosts of Danes, Irish, Galwegians, Cumbrians, Scots and Picts' at a place variously described as Brunanburh, (Aet) brunanwerch, Brunswerce, Brunewerche, Brune, Brunandune, Brunfeld, Brunfort, Dunbrunde, Weondune, Vinheith. The site of this important battle is still unidentified; but a case has been made out for Burnswark in Ecclefechan, Dumfriesshire.¹ Dr Neilson's arguments were criticized in the same volume (pp. 431-5) by Miss Alice Law, and it is not my intention to enter the lists, for I have not had the opportunity of fully studying the evidence. I would merely say that, so far as I have read, Dr Neilson's identification at any rate seems to agree with the facts, even if some of his arguments do not stand. There is nothing against the equation of Brunswerce with the hill of Burnswark, so far as the names go; but there is certainly not room on the top of it for a battle of the magnitude of this one. On the other hand there is, only 3½ miles to the south, a rounded dome called Brown Moor (Dumfries 57 NE, 58 NW) which would do quite well for Weondune=Vinheith. (A farm on the western slope is called Whins, but no early forms are available and the name may not be connected). That this hill of Brown Moor had another name is shown by the name of a farm at its foot, Pennersaugh. According to Professor Watson² this was Penresax in 1194-1214 and it may be translated 'the hill of the Saxons'. The name

¹ By Dr George Neilson in the *Scottish Historical Review*. 1910, VII, 37-55.

² *Celtic Place-names of Scotland*, 356.

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occurs more than once further south,³ in one instance on the site of a battle between Saxons and Danes. Further, the hill facing Pennersaugh-Brownmoor on the southeast was evidently once called Dumbretton which name, like Dumbarton, meant the hill of the Britons.⁴ Could these names have any connexion with the battle? and could they have been given as late as the tenth century? If not they may refer to some earlier encounter in this border region which must have seen many previous engagements.

It is worth noting that the Roman road from Carlisle to the Clyde, the main west coast route, ran at the foot of both these hills on the north; that the important Roman fort of Birrens at Middlebie is only a mile from Pennersaugh Farm, and that the two hills are separated by what seems to be an old road of some importance. It unites Carruthers (=Caer Rhydderch, the citadel of the victor of Arderit, now Birrens, on the hill above Carruthers) with the fat lands of Lower Annandale, thickly studded with early sites (St. Mungo's, Hoddum, Luce, Brydekirk, Annan). Such a region was a likely one for a battle, under the primitive barbaric conditions of the early Christian era.

O.G.S.C.

MALTESE CART-RUTS

Mr E. M. P. EVANS writes (from the Transvaal):—In his article on Prehistoric cart-tracks in Malta (*ANTIQUITY*, 1928, II, 18) Sir Themistocles Zammit suggests (1) that some of these tracks formed themselves by use, some were cut on purpose; (2) that they were used by two-wheeled carts without tyres; and (3) the carts were drawn by men, not by animals. On the other hand Major Fisher (*ANTIQUITY*, 1931, V, 197) suggests that the carts were drawn by animals which walked in the wheel-ruts.

My theory (or hypothesis) is (1) that the ruts were all *cut* for the vehicles and did not merely arise from wear due to traffic; (2) that the vehicles were waggons (four-wheeled) without any means of steering, the wheels and axle being in one piece; and (3) they were undoubtedly drawn by large numbers of men with ropes.

³ Pensax, in Worcs. (left unexplained in *EPNS. Worcs.*, 1927, p. 67; Sixpenny Handley, Dorset (Sex-pene in Domesday; see Zachrisson, *Romans and Celts*, 1927, p. 49); Sixpenny Farm, Fontmell Magna, Dorset (8 SW) (Sear pennes for Seax pennes in BCS. II, no. 691). It should be noted that the eastern boundary of Handley crosses Oakley Down, the Aclea of Asser (ed. Stevenson, 1904, pp. 6, 178), the site of the battle of 851.

⁴ Watson, p. 184 (spelt *Drumbretton* by a slip).

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1. I agree with Sir Themistocles Zammit that the tracks could not possibly have been caused by a sledge. I have made and used sledges (or 'slees' as they are called here in South Africa), of every kind : those with proper runners, both shod with iron, and unshod, and even the simplest kind (the 'Kaffir slee') made from a forked tree trunk, similar to that shown in the article on 'Assam Megaliths' plate XI.¹ When taking even the easiest curve the runner of a proper slee makes an extremely wide track, as can easily be demonstrated with a little geometrical drawing. This broadening of the track, if it existed, would have been visible in the aerial photographs printed in ANTIQUITY.

From personal experience of driving many kinds of vehicles I can affirm that one vehicle does not follow exactly the spoor of another, except when *unavoidable*, that is when the road is very constricted. Animals in pairs do not like treading in a narrow rut, while their wilfulness makes it very difficult for the vehicle to follow the exact line if the driver should so desire. In sand especially, or where ruts are deep, it makes heavy going to follow exactly the old spoor. One follows merely its general line, so causing the wide *modern* ruts noticed in Malta by Sir T. Zammit. It follows that all the ancient tracks which are narrow must have been marked out on purpose and *cut by hand*, even if deepened by subsequent use.

With what object was this done, since the friction on the sides of the rut increases the tractive force required ? Obviously it was done to keep in the right direction vehicles that could not steer themselves. The modern analogy is any railway truck, for no railway truck has any means of steering at all.

2. A cart (two-wheeled) is steered by the shafts or pole, and a waggon by the 'disselboom' (pole) which turns the front wheels, but a railway truck has to follow the rails.

It seems to be generally assumed that carts were invented before waggons. Dr Cyril Fox in his article on 'Sleds, Carts and Waggons', (ANTIQUITY, 1931, v, 185) does not touch on the origin of four-wheeled vehicles. This supposed priority of the cart is supported by the complexity of the structure of a modern waggon, showing it to be derived from the cart. A waggon consists essentially of two carts, the pole of the second being fastened to the back of the undercarriage of the first, which has no body ; while the body of the second projects forwards and is supported by the undercarriage of the first. All modern and

¹ ANTIQUITY, 1929, III, 324.

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medieval waggons seem to be built on these lines, being apparently derived from a vehicle like the 'Wagon, limbered, G.S.', used in the late war for very rough country, on the principle of the field-gun and limber.

However the discoveries at Ur have shown a respectable antiquity for the waggon, and I suggest the following origin for a type of waggon which was employed in prehistoric Malta, but which afterwards went out of use :—

The megalithic builders had discovered the principle of the roller for moving their big stones (it was known in Mesopotamia, but not used in Egypt). When they had to move heavy loads of earth, they constructed a large box of timber and moved it on rollers as they had done with the stones. The next step was to cut notches on the underside of the box to prevent the rollers from running away, and to keep them always under the box. It was then found that two rollers were sufficient, and that the greater their diameter the better. An improvement was to reduce the diameter of the middle of the roller, where it lay under the box, to prevent the roller working out sideways. The result was a vehicle exactly the same in principle as a modern railway-truck, the wheels and axle being in one piece, and there being no means of steering, except by shifting the front of the vehicle across with handspikes. Hence the need of a 'track'.

As the truck had neither front nor back, it was not necessary to reverse it at the end of its journey, and it is noticeable that though many 'sidings' and 'passing-places' are revealed in the aerial photographs, there is no example of a loop for turning round.

3. The foot of a medium-sized horse of the 'Hackney' type is $5\frac{1}{2}$ inches wide, but its track is $9\frac{1}{2}$ inches wide. With the Shire type of horse the figures would be very much greater. A small trek-ox, just old enough to begin serious work, gave figures similar to those of the small horse, while a full-grown trek-ox of mine (not a particularly large animal) made a track 16 inches wide. I do not use donkeys, which have much smaller feet, but I venture to assert that no draught animal could walk in a deep rut, only 4 inches wide at the bottom. Even if there were room for its feet on the bottom and it could keep its feet in one line, it would 'brush', that is to say, kick itself, every time one foot tried to pass the other. Let the reader try this experiment for himself, making a 'rut' from two boards placed on the ground 4 inches apart, and himself taking the place of the draught animal.

Furthermore, it would take more than one yoke of animals to pull

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a useful load up the steep hills of Malta. Now, at a bend, the leaders would 'swing wide', making a big circle, each succeeding pair making a smaller circle, and the *vehicle* making the smallest circle of all; in short the animals cover a broad path, not a single line. Hence they could not possibly use a narrow rut.

The tractive force employed was evidently human, as suggested by Sir T. Zammit. The builders of the megaliths had been using large gangs of men for hauling the stones, and the change from stone to waggon was simple. The men would haul on a number of ropes and spread out fan-wise, so not wearing tracks with their feet. One correspondent has denied the use of ropes to the megalithic builders, but the employment of strips of hide is so simple and obvious an idea that it must have occurred at a very early period, probably antedating the use of vegetable fibres. In South Africa the Dutch farmers used until recently in place of 'trek chains' tow ropes made of untanned hide that would safely take the pull of 18 oxen.

If Sir Themistocles Zammit would give more exact details of the ruts, with dimensions taken at a large number of places, both on the straight and especially at curves, giving the radius of the curve in each case, and the depth of the ruts, it should be possible to calculate the size of the wheels and possibly the length of the waggons.

BRITISH PEARLS

The following account is taken, by permission, from the *Manchester Guardian Weekly* (7 July 1933).

'Only occasionally is the pearl-fisher to be seen at work in our British rivers today. Through force of circumstances he is becoming a rare bird, and moreover, at the speed at which we flit through the country now, that figure in mid-stream, handling a rod and with what appears to be a creel about his middle, is easily and naturally mistaken for an angler. It is only on closer acquaintance that these adjuncts of fishing become something interestingly different. It is to be feared, too, that if you saw a pearler and pointed him out to your fellow-passengers the tale would be received with doubt, for it is not generally known that some of our northern rivers, along with streams in Wales and Ireland, but more especially in Scotland, carry a pearl-bearing fresh-water mussel. And fishing for these pearls is an ancient British industry. Tacitus mentions the British river pearl; so does Pliny; there is reference to it in the *Faerie Queene*.

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‘ The industry persists today, although the rewards are unusually poor ; persists partly because there is a sort of family tradition associated with it, similar to that in the fishing industry and in the cotton trade. The man whom I found at work in a quiet stretch of a little-known northern stream told me he had been at it all his working life, following his father, who had followed his father. This, the grandfather’s time, would coincide with a brisk boom in river pearls that sprang up about 1860. Prices rose, and as a result there was an immediate descent upon the rivers, particularly the Scottish rivers, by people never before associated with pearling. It had disastrous results. Destruction of fresh-water mussels went on on a grand scale, and the shallows became virtually unproductive.

‘ Something of the kind happened again in early post-war years, It was marked on this occasion by the extensive use of motor-cycles to cover a wide area of rivers, so that destruction of mussels through intensive search went on on a mass scale. In the result the boom may be said to have killed itself, and many rivers and many Scottish burns were virtually cleared of all their fresh-water mussels.

‘ The Scottish rivers that yield the pearls are the Spey, Tay, South Esk, Doon, Dee, Don, Ythan, and the Forth leading them all ; in Wales the Conway, with two kinds of pearl-bearing mussels, is an easy first. The pearling rivers of England appear to be confined chiefly to the North Country, with the Cumberland rivers relatively prolific. Pearls from British rivers figure among the Crown jewels, and tradition has it that one such pearl was given by Sir Richard Wynne, of Gwydir, to Catherine, wife of Charles II.

‘ The pearl-fisher’s outfit is simple but interesting. It includes the usual type of waders. His rod is little more than a long stick, with a prong at the end for lifting the mussels. The most interesting item of his outfit is a sort of view-finder. This is a cylindrical affair of sheet tin, something like the domestic lading can. The bottom of this, regarding it as a lading can complete with handle, has been knocked out, and a circular piece of glass has been fitted in its place. The pearler dips this glass-covered end below the surface of the water and inspects the river bed. The mussels he thus finds he spears with his pronged stick, and his catch is transferred to a bag or sack slung about his middle. When his catch is big enough he returns to the river bank and begins the work of opening up and inspecting each mussel. It is a brief examination. The thumb is run round inside the shell, and any protuberance is removed for closer examination. The discarded

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mussels are returned to the river. Finds are rare in relation to the mussels opened and mussel destruction is great. As a trade it is highly speculative and seems to rank a degree or two below casual work '.

THE WEST KENNET AVENUE, AVEBURY (PLATE VIII)

It is generally known that the West Kennet Avenue, as it is usually called, led from the double concentric Stone Circles on Overton Hill, destroyed in 1724, to the Great Circle of Avebury. The Avenue stretched for just over a mile and followed a somewhat tortuous course governed by conditions of gradient, and possibly also by considerations of water level.

The Avenue originally consisted of 200 stones set in pairs at an average distance apart of approximately 79 ft. longitudinally and 49 ft. transversely. No part of the Avenue had ever been scientifically excavated, and it was decided this year to commence operations with the primary intention of ascertaining the exact line of the Avenue by uncovering the holes wherein stones that had disappeared had originally stood, with the secondary purpose of gleaning any possible information as regards the dating of the erection of this part of the megalithic monument, Avebury, from incidental finds.

The site selected was a field on the eastern slope of Waden Hill, some 500 yards in length near the centre of the course of the Avenue wherein eight fallen stones were still visible, as well as one stone which had never fallen and another which had been re-erected in 1912 by Mrs Cunningham, who had also in 1930 excavated the site of the Overton Circles. Excavations commenced early in April, and it was intended to allot three seasons' work to the uncovering of this section of the Avenue. As a preliminary, 15 cuttings were plotted, each of 100 ft. longitudinally by 80 ft. transversely, and it was decided to commence on cutting v, counting from the south end of the field and to proceed northwards up to and including cutting ix. It had been the original intention to close down for this season in June, but owing to the nature of the results which early manifested themselves, an alteration of plans was made, as it was considered desirable to excavate as far northwards as the extremity of the field, leaving cuttings i to iv for 1935. It had always been the intention of the excavators to re-erect any fallen stones or stones which might be discovered buried beneath the surface, in their original stone-holes, were such found, and this work, at the time of writing, is proceeding synchronously with the continuation of the

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excavation ; one fallen stone having already been re-erected as well as one found buried, the previous existence of which had not been suspected. In all, including those belonging to fallen stones, eight stone-holes in line have been uncovered on the eastern side of the Avenue and eleven on the western side, this leaving one stone-hole only unaccounted for, despite the most careful searching over the entire possible area where it might have been expected to exist. This failure may possibly be accounted for by the fact that the soil above the undisturbed coombe rock, which is the geological formation at this point of the Avenue, is unusually deep in the vicinity of the probable position of this stone-hole, and it may be that the stone, when originally erected, did not penetrate the subsoil, and consequently left no identifiable impression. Apart from the stone-holes, five buried stones, including the one now re-erected, have been discovered, and these also will in due course be erected in their original positions, while it is confidently anticipated that further buried stones may come to light as the work proceeds northwards, before the termination of this season's excavations. On three of these stones were discovered markings, which would appear to represent incised ornament, although it is, at the time of writing, too early to enter into details of this extremely interesting feature. It will not be out of place, however, at this stage, to stress the fact, which would appear not to be previously recorded or even observed, that the stones, not only of the West Kennet Avenue but likewise of the Circles of Avebury themselves, are not 'rough unhewn blocks of sarsen' as they have frequently been described, but that they have been carefully dressed and prepared prior to erection, and thus treated, moreover, prior to transportation to their present site, in contradistinction to the practice at Stonehenge.

From stake-holes found actually within or in the vicinity of certain but not all, of the stone-holes, as well as from the impressions left by supporting barks of timber, considerable information has been obtained as regards the original methods employed in the erection of the stones. Ten post-holes have also been discovered with the cores of their original timber uprights still clearly discernible, and one similar hole without any signs of carbonized wood within it. It is extremely doubtful, however, if not indeed improbable, that these post-holes had anything to do with the erection of the stones, although it would be premature to say anything definite upon this point before the end of the excavations. The suggestion that these holes were not connected with the erection of the stones and may, indeed, not even have

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been contemporary therewith, is based upon consideration not only of their position but likewise of the fact that they are localized within a relatively small area, beyond which, at any rate to the northwards where the coombe rock changes to middle chalk, they are nowhere to be found. It would appear more probable, therefore, that these post-holes represent the remains of a habitation-site, which suggestion receives colour from the discovery in their vicinity of a flint industry of a type totally distinct from that from the well-known neolithic site of Windmill Hill a mile and a half to the northwest. The finds of pottery associated with this flint industry served to date it satisfactorily, such pottery being typically Neolithic B or, as it has sometimes been termed, Peterborough ware, which in this district represents the secondary occupation of Windmill Hill. It is interesting to observe that not one shard of Neolithic A, or the so-called Windmill Hill ware, has been found during these excavations.

As regards Foreign Stone, two finds of considerable interest occurred ; both consisted of parts of broken polished axes and both have been definitely identified after microscopic examination as being formed of the well-known augite-granophyre from Graig Llwyd, which only occurs at Penmaenmawr in North Wales. There are only three recorded instances of specimens of this rock being found outside Wales, and one of these was on Windmill Hill at a depth equating it, as regards stratification, with the pottery of Neolithic B type, which pottery, it should be recollected, has also been discovered recently at one site in Anglesey, itself not far from Penmaenmawr.

Assuming that the theory of the habitation-site is correct, such a settlement can hardly have existed after the erection of the Avenue, and the date of the monument might, therefore, be taken to be Neolithic B, or later, were other confirmatory evidence not forthcoming. This, however, is now available in the form of burials at the bases of two of the stones which were discovered buried beneath the surface. In both cases the burial was on the east side of the stone, but in one case on the outside of it regarded from the centre of the Avenue, and in the second on the inner side. In the former case the grave was separate from the stone-hole and consequently need not necessarily have been contemporary. In the latter case, however, there can be no question at all but that the burial took place at the same time as the erection of the stone. With both these interments beakers were found. In the first case the bones had been scattered and much damaged by whoever buried the stone. In the second case, however, the digging

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of the pit for the burying of the stone had cut through but not wholly destroyed the grave, and the skull, hands and upper portion of the spinal column was fortunately left undisturbed *in situ*.

The excavations continued into August, and re-erection of the stones will proceed until completed; the work both of excavation and re-erection being recommenced next spring.

ALEXANDER KEILLER.

FAYUM PAPYRI.

A large haul of papyri has been made in the Fayum by an Italian expedition. The following account is reprinted, by permission, from *The Times*, 26 May :—

‘The papyri discovered by Dr Bagnani and Professor Vogliano at Teb-Tunis, in the Fayum [referred to in *The Times* of May 7], are, in the opinion of many scholars, the most important collection recovered by an archaeological mission for the last 30 years. They consist of three separate groups :—

(1) Literary texts, chiefly of dramatic authors, which were found in an old rubbish-heap in the main residential street of the Roman town. The identifications so far made are subject to reserve, but it is presumed that the texts include portions of Euripides, Menander, and perhaps some of the Old Comedy. Of prose works there are three columns of an anthology, in which are collected works of the most various description. An interesting detail of Greek literary history is given by the subscription of a hitherto unknown work of Apollodorus, the Athenian grammarian, which dealt with Homeric criticism.

(2) The largest group is formed by the texts found near the Teb-Tunis *grapheion*, or public record office. A large number of documents from the *grapheion*, which were no longer considered to be useful, were evidently dumped in the cellar of a neighbouring house. These documents, which date from the second century A.D., number about 1,000, and are extraordinarily interesting. Most of them refer to lawsuits. Curiously enough, the great roll with the commentary on Callimachus [mentioned on May 7] was found mixed up with these legal documents. Possibly the clerks in the record office earned extra money by copying literary texts in their spare time, and this roll was thrown away because it was damaged and hence unmarketable.

(3) This group consists of old papyri taken from public or private offices, which had been used to wrap up crocodile mummies. The documents in question belong to the Ptolemaic age; so far as can be seen they are accounts and legal rescripts’.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

It is reported that a Greek textile factory has been discovered at Stobi in Yugoslav, Macedonia, and is being excavated by Professor Petrovitch of Belgrade. (*Star*, 1 June).



An Irish crannog, excavated by the Harvard Survey directed by Dr Hencken, has yielded evidence of 'some obscure pagan foundation rite' in the form of two human skulls, buried beneath the lowest layer. The settlement was founded in the first century of this era. Traditions of this practice lingered on far down into historical times. (*Manchester Guardian*, 29 May; compare *ANTIQUITY*, June 1934, p. 225).



One hoped that the sentimental critic of excavations was extinct, and certainly his futile voice is far less often raised nowadays than formerly. The excavation of Maiden Castle near Dorchester, now in progress, has, however, drawn from him a few faint screams. To his complaint that the turf will be ruined it may be retorted (by those who know) that the turf of Maiden Castle is not the real down turf, because (1) the whole of the interior has been extensively ploughed (2) the ramparts were infested by rabbits until these were exterminated by the Office of Works. Also, as Lt.-Colonel Drew points out (*Daily Telegraph*, 30 May), Maumbury Rings, excavated 1908-13, now shows 'not a trace of the cuttings'; nor will Maiden Castle in a few years' time.



It is always the scientific excavator who is singled out for abuse by these people, because at bottom they are obscurantists and mystics, who prefer their own vague imaginings of what might have been to the revelation of reality. Where were they when the virgin turf of Hod Hill was ploughed up about 1860? when the Army first descended upon Salisbury Plain? when the Stonehenge Cursus was ploughed up

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and obliterated during the war ? Why has not one voice been raised in defence of Bokerley Dyke whose splendid flanks have been made raw and turfless by a plague of rabbits ? There is plenty for the sentimentalists to do if they really want to be useful, but they don't ; they merely want to annoy.



The following letter from Mr Kenneth Spence, Honorary Secretary, Lake District National Reserve Committee, appeared in *The Times*, 5 February 1934. 'The report of the National Park Committee was published nearly three years ago. It contained alternative recommendations for the setting up of either an executive or an advisory committee for bringing about the desired end of the formation of one or more National Parks in Great Britain. The outlay for alternative No. 1 was £100,000 for a period of five years, for alternative No. 2 £10,000 over the same period. Nothing has been done to implement this report or carry out its recommendations. The promise of the Government to give £50,000 for the Codex Sinaiticus gives us hope that they are now in a position to carry out the recommendations of their departmental committee, and we sincerely trust that steps will be taken in the immediate future to put the recommendations of the committee into being, with a strong hope that they will favour the first alternative'. The following extract from *The Times* (16 February) gives the answer :—'SIR E. HILTON YOUNG, answering Mr MANDER, who asked whether, in view of the improved financial condition of the country, he would consider the advisability of making a grant in accordance with the recommendations of the National Park Committee Report, said :—I have considered the matter and regret that I cannot hold out any prospect of a grant at the present time'.



As the sponsor of one of the areas accepted by the National Park Committee (that of the South Downs of Sussex), the Editor of *ANTIQUITY* naturally hopes that something will be done to carry out the recommendations. What are the sentimentalists doing to forward the project ? Here at least is a scheme which would give pleasure to thousands and preserve amenities and wild life from spoliation.



The Peruvian Government has made a grant of about £30,000 to provide the city of Cuzco with public works, found an Institute of

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Archaeology, restore the Inca monuments and conduct scientific excavations in the surrounding region. (*Ill. London News*, 7 April, illustrated by air-photographs of ancient sites).



Dr Aleš Hrdlička, accompanied by a number of volunteer students, left Washington on 11 May for a further season's work on Kodiak Island, Alaska. Several seasons have already been devoted by Smithsonian expeditions, of which Dr Hrdlička has been in charge, to the examination of sites on this island. The results have shown that it was at one time thickly populated and was in all probability a stepping stone in the peopling of America by migrants from Asia. (*Nature*, 9 June).



A diviner who believed that gold treasure lay under the ruins of Viroconium, the Roman city near Shrewsbury, was permitted to excavate at a spot where the divining rod appeared to give the most pronounced indications of metal. A stone weighing half a ton had to be removed, and then digging to a depth of six feet gave a negative result. (*Birmingham Daily Mail*, 13 April).



The claim that Cenn Cruaich, the name of the famous stone on the Hill of Tara, is the Gaelic equivalent of the word Pennocrucion has been made by a writer in *Revue Celtique* (1895, xvi, 36). It raises interesting problems. What is the exact meaning in combination of the two words which mean 'head' and 'mound' respectively? As a place-name the word occurs at least twice in England, at Penkridge in Shropshire and Pentridge in Cranborne Chace, Dorset.



An article on the archaeological interests of the Chinese in quite early days, and its revival on a scientific basis under the direction of Dr J. G. Andersson, was published in *The Times*, 2 May, p. 15, by Professor W. Perceval Yetts, who states that the first recorded instance of a museum in China is one set up in Nanking towards the end of the 5th century A.D. by a son of the reigning emperor. An illustrated catalogue of bronzes was compiled about 1092 and an inventory made in the 12th century is extant. Dr Yetts also published an article on Chinese glass in *Illus. London News*, 12 May.

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The visit of Sir George Hill, Director of the British Museum, and of Sir Charles Peers, late President of the Society of Antiquaries, to Cyprus in order to examine its ancient monuments is reported in *The Times*, 5 May, p. 11. One result of their mission, and of the interest of the present Governor of Cyprus, will be to rescue the monuments from the scandalous condition into which they have been allowed to fall. Comment on their preservation is made in our editorial notes.



The bridge which carried Stane Street over the river Arun near the Roman station of Alfoldean, Slinfold, Sussex, has been located by Mr S. E. Winbolt, who under most favourable conditions was able to examine the site and the wooden piling. (*The Times*, 30 May, p. 19).



Recent discoveries of Roman London are recorded in *The Times* 31 May, p. 11. The most important was on a site in Jewry Street when for the first time was found a deposit of pottery under the foundations of the Roman wall where it crossed a hitherto unrecorded stream.



A full account of the extraordinary hoard of Sumerian statuary found at Tell Asmar (see also *ANTIQUITY*, June, p. 226) by Dr Henry Frankfort, Director of the Iraq Expedition of the Oriental Institute of the University of Chicago, has been written by him for the *Illus. London News*, 19 May. The statuary is dated 3000 B.C. and is the first collection of Sumerian cult-figures found. The figures were actually worshipped in the Temple of Ab-ù at Tell Asmar. Dr Frankfort also writes in the *London News* (9 June) an account of the site at Khafaje, about 12 miles from Tell Asmar, where another great find of Sumerian sculpture has been made.



Work at Salmonsbury Camp, Bourton on the Water, Gloucestershire, was resumed in August, the original entrance on the north side along Bury Bank being excavated. Last year three hut sites were opened and yielded a number of finds of pottery, brooches, and iron and ivory objects. With the pottery were fragments of a vessel said to be 'probably unique' in England. It has a series of fine vertical

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ribs made in imitation of a metal vessel. It is dated to the beginning of the first century A.D.



Sir Flinders Petrie reports (*The Times*, 14 June, p. 12) on the season's work at Gaza, where he cleared about 4 acres along the river side and found over 200 haematite weights as evidence of the trade of the port. Among a large number of gold ornaments were plaques of the Great Mother goddess; ear-rings of granular work; toggle pins for fastening cloaks. They were published in *Illus. London News*, 16 June.



A scientific mission to the Tassili-n-Ajjer, a region northeast of the Hoggar Mountains in the Sahara, reports a number of rock paintings of animals—elephant, giraffe, rhinoceros and oxen—which must have water, thus showing that when the region was inhabited it had a humid climate. (*The Times*, 14 June, p. 15).



The Wellcome Archaeological Research Expedition has been excavating at Tell Duweir, in South Palestine, believed to be the site of Lachish, and the Director, Mr J. L. Starkey, reports finding ostraka with a similar script to that discovered by Dr Grant at Beth Shemesh only 20 miles away. The letters appear to be based on the Egyptian Hieratic script of the 16th century B.C. (*The Times*, 9 June, p. 13).

Dr Theodore Gaster, in a letter to *The Times* (12 June, p. 10) states that he had arrived at a tentative and approximate translation of the inscription. Further letters by Dr Alan H. Gardiner and Dr F. Melian Stawell were printed in *The Times*, 13 June, p. 12 and 23 June, p. 8, and a table showing the progress made in translating the inscription is given 25 July, p. 15.

Reviews

ROYAL COMMISSION ON HISTORICAL MONUMENTS, ENGLAND. An Inventory of the Historical Monuments in Herefordshire. Vol. II: EAST. H.M. Stationery Office, 1932. pp. xxxvi, 266, with map, plans, and 190 plates. 30s.

The area covered by the second volume of this Inventory includes, in addition to the three hundreds of Broxash, Radlow and Greytree, east of the Lugg and the Wye, the eastern half of the hundred of Grimsworth, between the two rivers, and a few out-lying parishes, chiefly on the borders of Gloucestershire and Worcestershire. Its monuments are as a whole less interesting than the remarkable series described and illustrated in the previous volume, and their merits are of a somewhat different order. While the seventeen churches distinguished as 'especially worthy of preservation' exceed by one the number selected in Hereford and the southwestern hundreds, there is nothing in the district which compares from the architectural point of view with the splendid presbytery and transepts at Abbey Dore or the twelfth-century churches at Kilpeck, Moccas and Peterchurch; and the large and handsome church at Ledbury, with its beautiful fourteenth-century north chapel, is less worth a special pilgrimage than the peculiarly attractive church of Madley. In medieval military architecture, again, the district is wholly deficient, and its only traces of religious foundations, apart from parish churches, are the hospital of St. Katharine at Ledbury and the chapel of the preceptory at Dinmore.

On the other hand, while it has few of the motte-and-bailey earthworks to show which are plentiful further west, its early earthworks, conspicuous among them the hill-top camp on the Herefordshire Beacon, are of a richer and more varied character, and it contains one Romano-British site of exceptional interest at Kenchester, the *Magni*, *Magnae* or *Magna* of the Antonine Itinerary. Its earlier churches are not without interest: Castle Frome, with a square chancel, and Holmer, with continuous chancel and nave, are complete twelfth-century fabrics, Fownhope has a twelfth-century tower between nave and chancel, and the foundations of an apse have been discovered at the end of the twelfth-century chancel at Tarrington. Late Romanesque doorways are numerous, and, amid much fine sculpture of the period, the tympanum in the west wall at Fownhope and the font at Castle Frome deserve special mention. Of the larger churches, Bromyard and Ledbury, both important ecclesiastical centres, and Ross contain much work of the thirteenth and fourteenth centuries, and Ledbury in particular illustrates a process of reconstruction and enlargement which, beginning late in the twelfth century, was completed in the fourteenth. The imposing church at Bodenham is a good example of the fourteenth-century rebuilding of which there is so much in the county, though its detail is plain and without special local characteristics. Bosbury, which, like Ledbury and some other Herefordshire churches, has a detached tower, is a large aisled church, mainly of the later years of the twelfth century, the piers of which have deeply scalloped capitals of the transitional type familiar in the West of England. In the sixteenth century, a vaulted chapel was built at the east end of the south aisle,

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and the church has further attractions in its tall rood-screen with mullioned openings and the elaborate Elizabethan monuments in the chancel. Several churches, as Tarrington and Weston Beggard, contain good fourteenth-century monuments and wall-recesses; there are numerous monuments at Ross, the earliest of which is the table-tomb of William Rudhall (1530), with much sculpture; but the best series in the district is at Much Marcle, where the oak effigy of a civilian in the south aisle is justly famous. The beautiful Grandison monument in the chancel, with the drapery of the effigy falling over the end of the tomb, a somewhat later table-tomb with male and female effigies, and the mid-seventeenth-century tomb of Sir John Kyrle and his wife in black marble and alabaster, are works of art such as few churches possess. There is not much ancient stained glass within the area; but the fifteenth-century east window at Ross, the well-known fourteenth-century window at Credenhill with figures of St. Thomas of Canterbury and St. Thomas of Hereford, and some glass of like date at Brinsop are exceptions.

Examples of domestic architecture are plentiful, chief among them Brinsop Court, a moated fourteenth-century house of stone with later timber-framing. The timber-framed house is characteristic of the district, and no English town exhibits this type of dwelling to greater advantage than Ledbury. At several places there are small country houses of red brick and stone, built in the late sixteenth and seventeenth centuries: Hellens at Much Marcle is a striking instance of the earlier date. The destruction by fire of the large Queen Anne mansion at Stoke Edith has left merely the shell of the building; but wrought-iron balustrades of excellent design remain, and the stable building is intact, with pine-cone finials on the wooden uprights at the end of the stall-partitions.

It is needless to say that the variety of objects whose outstanding features have been briefly indicated here are described with the scientific precision and thoroughness which the executive staff of the Commission have brought to so high a pitch, and the summary information included in the Report of the Commission and the sectional preface leave nothing to be desired. Aesthetic appreciation and comments are outside the province of an inventory, but the numerous photographic illustrations bear witness to the beauty of buildings and the works of art which they contain, while the photographs of the Herefordshire Beacon and its camp do full justice to its picturesque merits. The plans of buildings are lettered and shaded with uniform clearness, and special praise must be given to plans of towns and earthworks which display not only minute accuracy but high artistic skill and an instinct for appropriate decoration. A. HAMILTON THOMPSON.

PALEOLITHIC MAN AND THE NILE VALLEY IN NUBIA AND UPPER EGYPT: a study of the region during Pliocene and Pleistocene times.* By K. S. SANDFORD and W. J. ARKELL. *The University of Chicago Oriental Institute publications*, vol. XVII, pp. XVII, 92, with 43 plates, 1 map and 21 figs. 28s 6d.

This volume, the second of the Prehistoric Survey of Egypt and Western Asia, describes four years' field-work (1926-30). A coloured map summarizes the geological results; Pliocene and Pleistocene alluvia have been overprinted on the older geological deposits forming the solid substratum, and relief is indicated by contours at 200 metre intervals.

The region in question covers an area of 500 miles, from the neighbourhood of the

* Review translated by the Editor.

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second cataract to Luxor. The Nile flows first over crystalline formations, then over Nubian sandstones, until these pass beneath Upper Cretaceous limestones which the river traverses in wide deep gorges. Traces of the great Pliocene transgression, which brought the sea to a point 180 metres above its present level and converted the lower Nile Valley into a long and narrow estuary, may be found even as far south as Edfu and Kom Ombo. Above this they disappear; nor are the contemporary fluviatile deposits to be found, and it seems that the denudation of the crystalline formations underlying the Nubian Sandstone above the second cataract does not antedate the Quaternary Epoch; for the Plio-pleistocene terraces of 300, 200 and 150 feet contain no crystalline rocks.

Traces of Man do not appear until the 100-foot terrace, in the form of Chellean hand-axes, formed usually by detaching large flakes from big pebbles derived from the same deposit flakes belonging to Clactonian industry. The principal site is at es-Siba'iyyah near el-Kalb, between Kom Ombo and Esna.

Except at Dihmit, above Aswan, where there is a sheet of alluvium at the relative height of 75 feet, the first big fluviatile deposit below 100 feet is that of 50 feet containing an industry of smaller hand-axes, of more regular and flattened form, regarded as Acheulean by the authors. It contains discs also. There are three main deposits, at Ashkit near Wadi Halfa, at el-Kalb and at Kom Ombo. The two lower terraces (30 feet and 10 feet) contain, at any rate the lower of them, numerous Mousterian implements (Levallois industry).

But climatic changes were in operation, the pluvial regime which had marked the Pliocene and Pleistocene gradually gave place to semi-desert conditions, first in Nubia, at the end of the Acheulean, then in Upper Egypt, during the Mousterian. Then were deposited the micaceous brick-earths which cover the Mousterian terraces and which rise gradually until at Wadi Halfa they reach a relative altitude of 100 feet. The deposition of these brick-earths is connected with a profound change in the hydrographic system of the Nile. Their origin is, in fact, almost exclusively Abyssinian, whilst the alluvium of the terraces was mainly of local origin. At their base these brick-earths still contain Mousterian; higher up appears an industry which is typologically allied, the Lower Sebilian. The author's figures do not allow us to estimate the reliability of this statement.

Finally erosion resumed its rôle and shaped the surface of these brick-earths where, ever nearer and nearer to the present river-bed but at altitudes which are higher up stream, there occur those Middle and Upper Sebilian settlements which were first studied at Kom Ombo, by Vignard. At Dibeira West, almost on the Sudanese frontier, the Upper Sebilian seems contemporary with a Nile at 40 feet. At Edfu a surface work-shop occurs at 33 feet, and the river-level at this point was then probably below 20 feet. Additional support for the climatic considerations already brought forward is to be found in the absence of the Sebilian in the desert region between the Nile and the Red Sea. West of the river arid conditions apparently did not prevail until later.

Last comes an informative chapter on newly-discovered rock-sculptures in Nubia. The oldest occur above the probable level of the river in the Upper Sebilian. This is merely a *terminus a quo*.

The observations of the authors relative to the climate, characterized by a progressive desiccation from the Pliocene to the end of the Pleistocene, are apparently in disharmony with those of Miss Caton Thompson and Miss Gardner, who, as is known, from their masterly studies in Kharga Oasis concluded that there were alternate wet and dry

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periods. This contradiction is perhaps more apparent than real ; for if, on the one hand, erosion is not always synonymous with dryness, it is plain, on the other, that river terraces only represent disconnected moments of geological time, and that the information they provide about climate cannot be made to cover the intervals with awkward results.

Working in different country, upon alluvial deposits which in general are poor in archaeological remains and quite devoid of palaeontological ones, Messrs. Sandford and Arkell have squeezed the maximum of profit out of them. They cannot be blamed for not finding what was not there.

R. VAUFREY.

TRADE AND POLITICS IN ANCIENT GREECE. By JOHANNES HASEBROEK, translated by L. M. FRASER and D. C. MACGREGOR. G. Bell & Sons, 1933. pp. ix, 187. 7s 6d.

Hasebroek takes up a position, very much on Bücher's side of the half-way line, in between Beloch and Bücher, whose famous controversy has been conveniently summarized in H. Knorringer's *Emporos*, pp. 134-39. That is to say, though he agrees to a greater circulation of articles than Bücher, he favours agriculture and trade in agricultural products against industry and trade in industrial products of common use as the basis of economy in the periods of Greek history under consideration, the archaic and the classical. His differences with Bücher may be seen by a glance at pages v, 58, 79, 80, 90, note 5.

The contents of Hasebroek's writings have already been broadcast in several reviews of this book, its German original and its successor, as yet untranslated.¹ Furthermore, his views find support in Laistner's *Survey of Ancient History* (esp. pp. 118-127, 150-55, 283-93). So there is no need to repeat what is by this time well-known. Still, some points of method remain for notice within the limits of a review.

First of all, Hasebroek's use of archaeological evidence. Comments on history by archaeologists are liable to be in direct opposition to him. 'Corinthian wares, backed by the most powerful commercial system of the time' are announced by Payne (*Necrocorinthia*, p. 36). 'By the middle or before the end of the (sixth) century' Beazley says (*Attic Black-figure : a sketch*, p. 12) 'the Athenians had wrested this vast commerce (of pottery) from Corinthian and other competitors ; they held it for centuries ; held it unchallenged for a hundred years'.

Hasebroek's case against such notions, apart from his general economic arguments, is that trade in decorated pottery and the like was a trade in luxuries. In examining export trade the question he asks is 'Did it or did it not include articles of common everyday need ?' (p. 79) and 'decorated pottery' he says 'was an article of luxury (like the other commodities mentioned above), and there is no evidence whatever that it was in demand among the ordinary people' (p. 51, cf. p. 49). This is in accord with Shear's description of varieties of unexciting painted pottery found in the excavations in the Athenian Agora in 1933 as the sort of thing used by 'the average Athenian of modest means'. (In a lecture at the American School, Athens on 27 February 1934. At the time of writing these vases have not been published in *Hesperia*).

Good china is made at Worcester, but this does not make that city into an important industrial centre. Good china is not regarded as an index of economic prosperity today—

¹ cf. *J.H.S.*, 1929, pp. 108-9 and 1932, pp. 147-8. *C.R.*, 1934, pp. 15-16. *Times Literary Supplement*, 8 March 1934, p. 161. There has been an extensive press in Germany, including P.N.Ure in *Gnomon* 1929, pp. 220-6 (in English).

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nor indeed is any luxury at any time so regarded ; it is always the necessities which must be examined.

The quantity of pottery which has been found is apt, by reason of its volume in proportion to other finds, to throw observers off their balance. When we hear of large quantities of pottery described as all belonging to a particular phase of a style, it should be remembered that such a phase is spread over a period of years, so that archaeologically-contemporary vases may be actually by no means contemporary in the ordinary sense of the word. If it were possible to assign exported vases to their year of export those 'immense' quantities of which we are told would lose some of their immensity.

But Hasebroek falters a little when he deals with the results of excavations and spoils his case quite unnecessarily. He gives as the uses of vases which are found away from their place of manufacture (p. 70): (a) containers for oil and wine in transit²; (b) decorations for tombs; votive offerings; (c) prizes taken home by the victor in some international contest, 'like the (later) Athenian "prize-amphorae"'.³

The supremely weak point here is the incompleteness of (b). 'Decorations for tombs' were not a special line like modern artificial funeral wreaths; the paraphernalia put in graves included the kind of things which the dead would have enjoyed if they had remained alive (cf. Payne *op. cit.* p. 172 n. 1). And further, vases are found in the remains of houses as well as in graves and temples.

The necessary addition of vases for the home to Hasebroek's list in no wise invalidates his conclusion that 'vases were not exported as articles of everyday need' (p. 70). Nor would the conclusion suffer if two sentences on page 58 were modified: 'merchants who came thither (to Corinth) took away with them sometimes the products of Corinthian labour for sale abroad'; 'itinerant merchants from time to time came and bought the products of Milesian workshops'. Luxury trade is not inevitably as casual as that.

A word is needed on a theory of Bücher's with which Hasebroek dallies ('considerable plausibility', p. 51, 'plausible', p. 70), though it is not essential to his argument. The theory is that vases were generally made where they have been found, similarity of design and the appearance of the same signatures on vases at places distant from each other being explained by travelling on the part of the craftsmen.

There is no doubt that some craftsmen did travel.⁴ But it is fantastic to regard as the work of wanderers the greater bulk of vases which are generally agreed by archaeologists to be exports. For one thing, the type of clay is a clue to origin,⁵ and by this objective criterion, quite free from any taint of subjective aesthetic, it is possible in many instances to establish the fact of vase export. And again, there was some degree of standardization, as Ure points out. (*Gnomon*, 1929, p. 222).

In referring to Xenophantos (p. 51, n. 2) Hasebroek should have been more careful. We do not hear of this Athenian potter travelling round South Russia making and selling 'Attic' pottery. What we have is a lekythos,⁶ decorated with reliefs from Kertch, with an inscription on it saying that it was made by Xenophantos, an Athenian. The vase is of a type obviously made to suit local demand; it is only Attic in that it was made

² On the view that this was the main use of vases cf. Beazley *op. cit.* p. 12.

³ For Panathenaic amphorae cf. Beazley in *J.H.S.*, 1931, p. 299.

⁴ cf. J. L. Myres, *Who were the Greeks?* p. 599, n. 34 and the references there cited.

⁵ cf. Payne, *op. cit.* p. 265.

⁶ Hasebroek wrote 'krug'; the translators write 'oenochōē'. It is sometimes described as an aryballos! Hoppin lists it correctly in his *Attic Black-figure Vases*, p. 473 (with drawing). Cf. Waldhauer's 1914 guide to the Hermitage vases p. 114.

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by an Athenian. And as for Xenophantos wandering about South Russia, there can be neither proof nor disproof; the most that we are entitled to infer is that he did work in Panticapaeum. (cf. F. Courby *Les vases grecs à reliefs*, p. 150 n.2, and M. H. Swindler, *Ancient Painting*, p. 29).

Hasebroek's remarks at the end of the first paragraph on page 51 prompt the thought that if he had not been intent on making his metics' trail about so much, he might have refrained from calling Bücher's view plausible and have been a little less impetuous in dealing with the Xenophantos evidence.

And now Hasebroek as a political commentator. He is led astray by the terminology of Weber to speak of the ancient world as dominated by 'political' as distinct from 'economic' motives (pp. vii, 30, 103, 135). This is playing with words. He himself says that foreign policy was determined by the need for food and shipbuilding materials, and what are these but economic needs? He is entitled to say that Greek policy differs from modern policy in that it was not controlled by commercial motives, but he ought to have avoided the mistake of equating 'economic' with 'commercial'. The Greek and modern worlds alike are dominated by economic motives; the distinction between them lies in the difference in the form of the organization of mankind for the struggle with nature.

Hasebroek is, in fact, too naive and too prone to take political terms at their face value. Hence his judgment on the post-war world (p. 132). By failure to analyse the concept 'nation' and its concomitant 'balance of power', he reaches a conclusion which is from one angle unduly optimistic (the so-called League of Nations as 'a lasting achievement') and from another, unduly pessimistic ('there never will be complete and stable balance of power'), as if the Nation was the final political entity and mankind was somehow fated to be dragooned eternally in national armies.

But he can see well enough to penetrate the mists of Parnassian romanticism. After the sugary diet which is not seldom served out under the guise of serious historical writing, it is refreshing to find the tart remark 'the background and the basis of politics and economics in antiquity was *force*' (his italics, p. vii).

And again, he is on the right lines when he says (p. vi): 'the problem of differentiating between historical epochs is one which cannot be shirked'. That he follows out this principle in practice may be seen from the contrasts he makes between the periods he is examining and the Hellenistic period and from his plentiful references to modern and especially medieval history. It is only by such differentiation that it is possible to avoid misleading analogies with today, which not only distort the study of both ancient and recent history but are calculated to be of practical use on the side of reaction.

It is unfortunate that he fails to keep up the critical standard he set himself when he made these two judgments.

Be that as it may, we are under a debt to the alliance between 'Modern Greats' and 'Greats' which has produced this workmanlike translation. Is it too much to hope that this is a step in the direction of removing an anomaly which among English students is too often unpleasantly obvious; typically English, if you will—precise knowledge of detail combined with a blissful ignorance of the basic nature of the various periods of Greek and Roman history and of the distinctions between the ancient, medieval and modern worlds?

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⁷ Metics were not all as 'homeless' as Hasebroek represents (p. 43). The metics in the Athenian army in 431 B.C. (Thuc. 2. 31) were fighting for 'hearth and home' as much as any Athenian citizen, though this does not mean that their interest in the war was of the nature suggested by Cornford—struggle for markets and so on. (Thuc., *Mythistoricus*, pp. 20-1).

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MÉMOIRES DE LA DÉLÉGATION FRANÇAISE EN AFGHANISTAN. T. IV. Les Fouilles de Hadda. By JULES BARTHOUX. I. Stupas et Sites. Paris: Editions d'Art et d'Histoire, 1933. pp. 213 with 198 illustrations and 7 plans. Price not stated.

L'OEUVRE DE LA DÉLÉGATION ARCHÉOLOGIQUE FRANÇAISE EN AFGHANISTAN (1922-1932). I. Archéologie bouddhique. By J. HACKIN. Tokyo: Maison Franco-Japonaise, 1933. pp. 79 and 61 illustrations. 3 yen.

As part 4 of his *Fouilles de Hadda* M. Barthoux has already published an album of illustrations (reviewed in *ANTIQUITY*, v, 134). The present volume gives a technical description of the sites in which the objects illustrated in part 4 were found, including also an account of the mural decorations. Of these latter the most interesting is an unfinished wall-painting, which shows us that the artist began his work by sketching-in his subject in red ochre.

M. Hackin's book consists of lectures given at Tokyo in the winter of 1932-3, and is an excellent summary of the larger, official publications. The principal sites dealt with are Hadda and Bamiyan. At Balkh itself, where it was hoped that important remains of Greek civilization might be found, the results of the Mission were disappointing. M. Hackin speaks of 'le mirage bactrien' and, quoting M. Foucher, reminds the reader that Marco Polo appears also to have been a victim of this same mirage when he writes of Balkh's 'beaux palais et maintes belles maisons de marbre'. A. WALEY.

BOROUGH AND TOWN: a study of Urban Origins in England. By CARL STEPHENSON. Cambridge, Mass.: the Mediaeval Academy of America, 1933. pp. xvi, 236 and 8 plates. Price not stated.

In this closely packed book, whose thesis is a modified extension of that of his article in the *English Historical Review* for 1930, Professor Carl Stephenson of Cornell makes an important contribution to the controversial literature which has grown up around the origins of medieval towns. Beginning with a critical summary of the growth of the controversy, he reveals himself quickly as a disciple of Professor Pirenne, to whom indeed the book is dedicated, and whose 'mercantile settlement' theory applied out of its continental context to the explanation of the really very different English phenomena underlies the whole argument. After a chapter in which the continental evidence is reviewed, he turns to England, and the thesis of the rest of the book may be briefly summarized as follows. Of direct survival of institutions from the Roman *civitas* to the Saxon *chester* he agrees that there is little trace and little probability, though exceptions may be found in the southeast, especially at Canterbury and London, and in one passage (p. 67) he rashly and somewhat paradoxically claims that both markets and mints in general 'had continued to exist in the Roman cities taken over by the Saxons'. But in any case the *burhs* built by both sides in the Danish wars made a break with the past whether they were established in Roman walled cities or on fresh sites selected for strategic reasons. But these *burhs* are to Prof. Stephenson, as they were to Maitland, essentially military and administrative centres. Their courts were the courts of territorial districts, and grew, if they grew at all, into the shire-moots of the Mercian burghal counties or into hundred courts of the West Saxon model, rather than into the familiar borough courts of self-governing medieval towns. Their leading men were a territorial aristocracy living on the produce of their fields, not a bourgeois community living on the profits of commerce. Between Saxon *burh* and medieval borough there is thus a great gulf fixed: and the latter grew suddenly and dramatically with the growth of

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international trade in the eleventh century and the influx of French merchants which accompanied the Norman Conquest. The *liber burgus* of the twelfth century has thus a new and different social and institutional background from the military *burgus* of the tenth: 'divorced from the origin of the borough, the origin of town life in England thus appears . . . a problem not of legal interpretation but of social history' (p. 214).

A detailed criticism of the institutional evidence on which this argument is based would here be out of place, though it is clear that Professor Stephenson has to minimize or explain away a good deal of obviously commercial legislation in the laws of Athelstan, Ethelred, and Canute, which shows the *burhs* already developing mercantile aspects. Readers of ANTIQUITY will however note with pleasure his insistence on the value of topographical and archaeological evidence in accounting for the growth of our towns, and attention will here be concentrated on this aspect: for while the author is the first to admit the tentative character of this part of his story, it may be doubted whether his attempt to fit the urban topography into his argument will really work. For if his theory is true it is clearly necessary for him to show the small size of the normal tenth century *burhs* and to find a general policy of enlarging them to include the new trading settlements in the twelfth and thirteenth centuries. But if, for example, Nottingham seems to be a good instance of this process, there are others that point to a different history. Thus at Oxford, though a case can certainly be made for the extant walls including an extension of an original *burh* which ran no further east than St. Mary's and Cat Street (p. 204), yet Dr Salter has made it abundantly clear that this hypothetical extension must have taken place well before the Norman Conquest, when the present line of the enceinte was already fixed.* Oxford would thus be a case of extension just at the period most inconvenient for Stephenson's argument. So too the suggestion (p. 195) that the ramparts of Wallingford and Wareham, which enclose an area of some eighty acres, larger, that is, than he thinks proper for an early *burh*, are for that reason likely to be of the twelfth rather than the tenth century at once collapses when it is remembered that in both cases an eleventh century church is placed actually on the ramparts themselves. Any theory of burghal origins has in fact to allow for *some* tenth century enclosures much larger than the fifty acre limit set by Professor Stephenson (p. 195) and for extensions before as well as after 1066. We may note too that in dealing with *chesters* his discussion of the development of York, Lincoln, and Gloucester suffers from a failure to appreciate the distinction between a Roman legionary fortress and a *colonia*, or the peculiar position of York as a combination of both. But if the facts seem so often selected to suit the theory, the topographical approach to these problems is far too important to be left in its present neglect, and Professor Stephenson is to be congratulated on making it an integral part of his story: and his skeleton urban plans are exactly the right type of illustration for this kind of study.

There are rather too many misprints to ignore in a work of this importance, and the following list makes no claim to completeness. *Dumnorum* for *Dumnoniorum* (page 48, line 6); *stockage* for *stockade* (54, 21); *Southward* for *Southwark* (108, n.2); *henceford* for *henceforth* (125, 13); *placidis* for *placitis* (142, 19); *testimentary* for *testamentary* (149, 13); *under* for *unter* (158, n.5). On p. 194 the misleading form *Isca Silurum* for Roman Caerleon occurs. In a good many places the text is ambiguous or unnecessarily obscure: there are for example several possible interpretations of the

* Nor is Professor Stephenson right in assuming that the famous 'mural mansions' at Oxford were 'located along the ancient borough rampart' (p. 102). His account of this question is throughout unsatisfactory.

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sentence (p. 58, n.3) 'enclosures can only be made with square corners or rounded', and none of them would appear to be true. It is much to be hoped that this book will stimulate a qualified archaeologist to give us a topographical survey of the growth of our ancient towns: without an impartial presentation of these facts, as Professor Stephenson says, no theory of their origin can command consent. J. N. L. MYRES.

LURISTAN BRONZES IN THE UNIVERSITY MUSEUM. By L. LEGRAIN, *University of Pennsylvania, Philadelphia, (London: Oxford University Press), 1934. pp. 20 and 25 plates. 8s 6d.*

In the various discrete valleys of the mountainous regions to the north and east of Mesopotamia barbaric cultures grew up among tribes that were influenced by the riverine civilizations of Babylonia and Assyria but never themselves rose to the stage of urban life. Groups of relics, looted rather than excavated, from Armenia, Georgia, Azerbaijan, Kermanshah, and Luristan are giving us tantalizing glimpses of some of these peoples at uncertain moments in their long prehistory.

The Luristan bronzes, which have only become known in Europe during the last six years, constitute one such group. They are not only intrinsically attractive, but also interesting for striking resemblances on the one hand to early Sumerian and later Assyrian products, on the other to the animal style of the European Scythians. Unfortunately all come through dealers from native diggers who have ruthlessly plundered cemeteries and village-tells so that little is really known as to the origins of the objects. Legrain racily and critically summarizes that little knowledge and then gives a catalogue of a representative collection acquired by the University of Pennsylvania Museum—sixty-one bronzes, eight cylinder seals, some leaf-shaped arrow-heads and other stone implements. All the objects are illustrated by first-class photographs. Nowhere else can so good an idea of the prehistoric culture of Luristan be obtained at anything like such a modest price.

The majority of the bronzes could quite comfortably be dated between 700 and 400 B.C., the period to which the seals unambiguously point. But it is impossible to believe that all are so late. Archaism will hardly explain the resemblance of some daggers and axes to pre-Sargonic types from Ur (the most similar axe from that site by the way comes from a grave, that, though belonging stratigraphically to the 'early cemetery', might by its contents come down close to the Sargonid era). And the collection actually includes a bowl bearing a dedication to Sargon of Agade, c. 2525 B.C., while the British Museum possesses objects, said to come from the same region, which are dated by inscriptions to intervening periods down to 1100 B.C. This collection and others accordingly represent only fragments from a barbaric culture that must have lasted over two millennia. Closed grave-groups and stratigraphical observations would reveal the stages of its evolution or stagnation. In their absence the immediate task is to publish and describe what has been rescued. Everyone will be grateful to Legrain and the University of Pennsylvania for the manner in which that task has here been accomplished. (But a map would have been a help). V. G. CHILDE.

AN INTRODUCTION TO THE PREHISTORY OF CUMBERLAND, WEST-MORLAND AND LANCASHIRE NORTH OF THE SANDS. By R. G. COLLINGWOOD. *Trans. Cumb. and Westmd. Ant. and Arch. Soc.* 1933, N.S. XXXIII, 163-200. *Five distribution maps, in black and red.*

'The aim of this paper is to sum up, in the briefest possible outline, the present state of knowledge about the prehistory of our district; not with a view to completeness

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of detail or definiteness of conclusions, which would require a far larger treatment, but in the hope of providing a basis for discussion and a framework for research to be carried on by the Society's Committee for Prehistoric Studies. This Committee, it is hoped, will undertake a survey of our district's prehistoric remains which will soon render this paper obsolete'. In spite of this modest disclaimer we feel sure that the Introduction will find a place on the field-archaeologist's shelf beside the Inventory of the late Mr W. G. Collingwood, and be consulted as frequently. The present reviewer has in fact already so used it, to great advantage. It might be thought that an Inventory covers the ground adequately ; but, while remaining essential for reference, it necessarily remains an unclassified collection of facts, or rather a collection of facts classified (in this instance) upon a topographical system. If one is working upon a certain type of monument only, with no previous knowledge of the district, it is not easy to select from amongst the items of an Inventory just those examples which one has to investigate. Much time will be lost—often whole days—in visiting sites which do not belong to the period one is studying. But when one uses the Inventory *in conjunction with* such an Introduction as this, one's labour is immensely lightened. One is told, by one who knows, which items have been certainly identified, which are doubtful and which are certainly *not* what they have been claimed to be. Thus tested in practice, Mr R. G. Collingwood's Introduction has already proved of great practical use to one field-worker, and it will be used by many others before it becomes obsolete. That it should do so eventually, as its author predicts, is inevitable ; but it makes an advance, a stage of summing up preparatory to a fresh advance, and it will always therefore be gratefully remembered.

That it registers progress may be seen from the conclusions drawn by the author from the distributions mapped. The conclusion that 'our great circles [such as Long Meg and her daughters, see page 328 of this number] were built by seafaring people, coming from the south' (p. 177) is one of major importance ; and there are others which have been reached, and could only have been reached, by the geographical method of enquiry. Here is a working hypothesis, based upon evidence, to be tested by excavation. (The discovery for example of pottery contemporary with the building of these circles would show the lucky excavator what were the cultural affinities of the builders).

One is tempted to prolong this review to an undue length, so many good things does the Introduction contain. It concludes with Suggestions towards a Policy of Research, subdivided under the heads of Office-work, Field-work, Excavation, and Publication ; and an appendix on Surveying. The importance and vast scope of Field-work is well and justly emphasized, being defined as 'work done at the sites themselves by every means short of excavation' (photography might have been included). 'The study of a site is best undertaken by going there and trying to write a description of it, including every feature worth recording' (p. 194). This in itself is an admirable training in observation and in the use of words, and sometimes also in patience and fortitude under adverse physical conditions ! A word might have been added—always write your notes, however abbreviated, on the spot itself (not even in a barn near it). This is trying in rain, snow and wind, and not easy when surrounded by swarms of flies and midges in the heat of summer ; but it is essential if your notes are to be complete, accurate and fresh. The margin or back of a 6-inch Ordnance Map is, or should be, always available. It is not generally realized how much work there is to be done by merely *going and looking* at antiquities and recording the results. The whole work of all the Royal Commissions on Ancient Monuments is merely an elaboration of this method.

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The maps are entirely pleasing and adequate. By their austere economy they succeed in conveying their meaning to the reader, and what more can be asked? They condense a mass of facts and present them in a form that no verbal description can hope to rival; thereby illustrating the author's dictum that 'nothing ought to be verbally stated in the description which can be clearly shown by means of the plan'.

The length of this review illustrates another feature of modern research—that the important land-marks in progress do not necessarily, though of course they do sometimes, appear in the form of books. As often as not the best thing on a subject or a region is an article in the Transactions of the local society, such as the Inventory and Introduction.

O.G.S.C.

BRONZEZEITLICHE UND FRUHEISENZEITLICHE CHRONOLOGIE. Teil 4. Griechenland. By NILS ÅBERG. *Uppsala; Almqvist & Wiksells Boktryckeri-A-B.*, 1933. pp. 282 with chronological table. 30 kr.

Thirty years ago as a result of his excavations at Knossos Sir Arthur Evans put forward his division of the Cretan Bronze Age into three periods, Early, Middle, and Late Minoan, each of which was further subdivided into three periods. Since then the nine periods, and their distribution in the interval between about 3400 B.C. and 1200 B.C., have been accepted by every Aegean archaeologist. They are attacked by Dr Åberg in

Initial Date	Egyptian Dynasty	CRETE		GREECE		CYCLADES	
		Evans	Åberg	Evans	Åberg	Evans	Aberg
3,000	I	E.M. I					Early Cycladic
2,680	IV-VI	E.M. II		E.H. I			
2,300	First Intermediate	E.M. III		E.H. II			
2,100	XI	M.M. I		E.H. III			
1,900	XII	M.M. II	M.M. II with all more primitive material	M.H. I	E.H.		Proto-Cycladic (Pyrgos)
1,700	Hyksos	M.M. III	M.M. III	M.H. II	M.H. I		Early Cycladic
					M.H. II		
1,580	XVIII	L.M. I	L.M. I	L.H. I	L.H. I		

the present volume as the result of less than two years' study; in his third volume, published in 1932, he even uses the conventional system to support a somewhat rash theory of the dependence of Crete on Egypt. The modifications which he now proposes are drastic. Middle Minoan II, and the mainland Middle Helladic I which corresponds to it, he proposes to date about 100 years later than is usually done, to the thirteenth rather than the twelfth Egyptian dynasty. Most of Early Cycladic, the island civilization

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generally supposed to be contemporary with E.M. II, he brings down to the M.H. period, making its latest products even overlap the L.H. I shaft graves of Mycenae. Finally he entirely discards the whole of the E.M. period and M.M. I, supposing that the Minoans arrived in Crete with their civilization already fully developed, and that the more primitive phases are degenerate developments, due in part to a different people, in South and East Crete.

These conclusions, startling as they are, cannot be hastily dismissed. Dr Åberg has a remarkable gift for assimilating material, and he brings a fresh and unprejudiced eye to the consideration of Aegean problems. The short chronology which he proposes would solve one of the greatest difficulties of European history, the gaps which exist in the Bronze Age chronology of such countries as Spain, Italy, and South Russia. The European evidence alone would almost compel a re-examination of Aegean dating.

The suggestion that the M.H. period is shorter than has usually been supposed receives considerable support from the shallowness of this stratum at Eutresis and Korakou, and from the homogeneous character of the material; but these considerations can at present hardly outweigh the synchronism of M.H. I with the older Palace at Knossos, which was first established by the excavations at Phylakopi. Incidentally Eutresis provides an exception to Åberg's statement that shaft-hole axes are not found on the Greek mainland. On the other hand Åberg's demonstration that much of the Early Cycladic material is contemporary with M.H. is entirely convincing, and though in detail the dates which he proposes may be modified by fifty or a hundred years (it is difficult for instance to believe that all the material from the citadel at Paros is really of the same date) it will henceforth be difficult to date such burials as those of Nirou Khani to the time of the first Pharaohs. Åberg however unduly depreciates the results obtained by the excavations at Phylakopi. The three periods on that site are marked by different orientation of the principal buildings, and the excavators stressed the fact that they do not imply cultural breaks. The analysis of pottery from the second excavation remains the most valuable guide to Cycladic-dating; while it is Åberg and not the excavators who is responsible for the curious inconsistency in the spelling of 'Mycenaeen' on p. 115.

In the Cretan dating Åberg has two new theses. He is probably right in denying the existence of a lacuna between M.M. I and M.M. III in East Crete, a period during which it is usually supposed that the eastern palaces were entirely deserted. The lacuna however may be best accounted for by supposing that M.M. II, like L.M. II, is a purely palace style, a solution already hinted at by Evans in the first volume of the *Palace of Minos*. If this is the case it is no longer surprising to find identical objects in late M.M. I and early M.M. III deposits.

In denying the existence of an E.M. period however Åberg disregards both stylistic considerations and the evidence of stratification; a regular development can be traced in the pottery from Neolithic to Kamares, while at Knossos the three periods were clearly superimposed (*BSA*, x, p. 19). Moreover, the few Egyptian objects found in a definitely E.M. context suggest a date at least as early as the First Intermediate period for the beginnings of Minoan civilization (*Pendlebury, Aegyptiaca*, p. 114). Åberg is not at home with the Egyptian material; thus he states that lions first appear on scarabs in the eighteenth dynasty, whereas they are actually found on scarabs from the ninth dynasty onwards and are one of the commonest subjects on the button seals of the preceding First Intermediate period. Although scarabs with spiral designs are first common, as Åberg states, from the time of Sesostri I, they occur sporadically from the fifth dynasty onwards; thus the design, Åberg fig. 501, is exactly repeated on a button of about the eighth or

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ninth dynasty (Petrie, *Design Scarabs*, pl. iv, 259). In fact the best evidence for the dating of E.M. is the remarkable similarity between the seals of that period and the buttons of the First Intermediate. Perhaps the same impulse that drove Syrians to Egypt about the eighth dynasty was responsible for the arrival in Crete of the first Minoan settlers.

Finally, although the short chronology solves many European problems, it raises a new set of difficulties for the historian of the Near East. The survival of pre-dynastic Egyptian types into the Cretan Bronze Age, such as stone vases (at Knossos and elsewhere) and block figurines of Naqada type (in the Messara tholoi) might be explained on the conventional chronology by supposing that such types continued to be produced in the Delta until their makers were driven out by Menes; it is less easy to suppose that they survived right through the Early Dynastic period without leaving any trace. Such survivals must warn us against Åberg's constant assumption that identical types, even of quite a specialized nature, may not have been repeated over a long period of time, especially if they had a magic value; thus fiddle-shaped idols are found in Cycladic tombs, in the Neolithic tell at Knossos, and recently by Frankfort in an archaic Sumerian deposit, which implies a time range on Åberg's chronology of about 1000 years. There will be an almost equally inexplicable gap between the Minoan culture and the Painted Ware culture of Tell Halaf which is probably ancestral to it, although the lower limits of the Tell Halaf ware are not yet sufficiently determined. Perhaps Åberg will now turn his attention to providing a short chronology for the Oriental periods.

The book bears some signs of hasty writing; few readers will agree in regarding as stylistic the resemblance between figs. 110 and 193, or figs. 196 and 197; but it will be welcomed not only for its revolutionary and stimulating suggestions but also for its valuable account of the Cycladic material, much of which was unpublished and inaccessible to English students; while those who have found the development of Middle Minoan pottery puzzling will be grateful for the interesting analysis of the Kamares style. Both the print and the illustrations are of a quality which should encourage students to buy and to read an outstanding contribution to Aegean archaeology.

C. R. WASON.

OLD AGE AMONG THE ANCIENT GREEKS. By BESSIE ELLEN RICHARDSON. Oxford University Press, 1933. pp. 376 and 27 plates. 24s.

In this age, when it is the tendency to focus attention on the very young, it is refreshing to turn to a nation who kept children in their proper place and paid due deference to their elders and betters.

Miss Richardson has made an exhaustive study of her subject, and seems to have collected almost every allusion to old age in Greek literature, and every representation in sculpture and terra-cottas, vases, gems and intaglios; though curiously enough, she omits the wealth of material to be found in the Hellenistic paintings. Starting from the literary side, she tries to discover what was the Greek attitude towards it, and decides that in its physical aspect, 'painful and unseemly old age' was always dreaded, and looked upon as a punishment second to death only; but to compensate, old people were always held in the deepest respect and affection, from the time of Homer when 'even mothers-in-law were held in esteem' down to Erinna, who paints a charming picture of old ladies with silver hair and golden thoughts. Moreover, the superior wisdom and counsel of the elderly citizen were much esteemed, and the duties which he was expected to fulfil in public life, in warfare, religion, and private life are dealt with

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fully. Following this, a detailed study is made of the treatment of old age by the great dramatists, where the conclusion is reached that Aristophanes' old men are all 'weak old dotards'. This is surely unjust, as these are often far cleverer than they appear at first sight.

The chapters on vase painting and sculpture are good and full, but would be improved by the inclusion of more illustrations, and long descriptions of works of art are apt to be both tedious and misleading; while in her enthusiasm the author sometimes brings in examples which do not depict old age at all.

The development of statues of the aged is traced from its rare and early appearances on the Olympia pediments and Boston slabs in the fifth century, when youth and virility were idealized, down to Hellenistic and Graeco-Roman times, when statuary was no longer religious but realistic in spirit. In dealing with portraits and busts, however, Miss Richardson makes the mistake of trying to deduce a man's character from his portrait, apparently forgetting that in most cases the bust was made a hundred years or more after the death of the original, and therefore represents only the idea of the artist, based on traditional features.

The book ends with a study of longevity among the Greeks, based on the evidence of over 2000 inscriptions, and although from these the author has calculated that the average expectation of life was only about 29 years contrasted with the modern figure of 57, yet there are numerous examples of both men and women who have lived to be over 100, and it must not be forgotten that these inscriptions are not universally representative.

The style is simple and direct, but occasionally marred by colloquialisms, such as 'sort of', 'very unique', and 'most unique'.

As a work of reference the book is valuable for the exhaustive index and appendices; but it is too much of a catalogue to be enjoyable reading. We are confronted with heaped helpings of raw facts, which, though of unimpeachable quality, are apt to be indigestible when taken in such promiscuous quantity and without the seasoning of a little apt theory.

ELEANOR DOBSON.

DE SENKVARTÆRE KLIMAVEKSLINGER I NORDEUROPA OG DERES BETYDNING FOR KULTURFORSKNING. By ROLF NORDHAGEN. Oslo: Aschehoug; London: Williams & Norgate, 1933. pp. 246 and 79 figs. Kr. 3.50.

This book is divided into three sections, the first of which deals with the question whether Norway was inhabited during the last interglacial and glacial periods. The author brings a wide range of evidence from studies of topography, deposits, shore-lines, and the distribution of plants and animals to show that parts in the west and north-west of the country were comparatively lightly glaciated. It is possible therefore that this region did not sink so much under the weight of ice as did that nearer the Gulf of Bothnia. As the sea-level fell, according to Tanner, about 100 m., there may have been a considerable negative movement which would have exposed a good deal of foreland. Dr Nordhagen believes that there is support for the view that there may have been in this area biological continuity from the last inter-glacial period down to the present. He is inclined to think that this may even apply to mankind, and that 'the northern coastal Aurignacian culture (*i.e.* the Komsa) may be a relic from the last interglacial period'.

The second part of the book (pp. 122-184), consists of a summary of climatic change in North Europe during late-glacial, and post-glacial times. The course of the retreat

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of the ice and of the changes in the height of land and sea are also described. As Malmö flint has been found north of the Ra moraines the latter can scarcely be correlated with the Central Swedish moraines, nor with the Salpausselkä in Finland; they may belong to the Daniglacial or early Gotiglacial stage. Dr Nordhagen then goes on to review the evidence for changes of precipitation and temperature that has been obtained from studies of peat, tufa, marine and freshwater deposits, the distribution of plants, and pollen analysis, and to summarize the characteristics of the late-glacial, and post-glacial climatic periods.

The rest of the book is devoted to a consideration of the influence that these geographical changes must have had on the course of settlement and the development of culture. The Fosna culture, a coastal one like the Komsa, is ascribed to the Pholas stage of late glacial times; pollen analysis has shown it to be older than the Maglemose of Denmark. The author raises the question whether the Nøstvet and Limhamn cultures do not antedate the Littorina or Atlantic period. He also puts forward the suggestion that there may have been in pre-boreal and boreal times a meeting in the Scandinavian peninsula between an old coastal culture with Mousterian-Aurignacian roots and one or more culture-streams coming from the south, the youngest of these being represented by the Mullerup-Maglemose.

Dr Nordhagen considers the sub-boreal a period of great interest, and of much importance in the history of culture; but he points out that its history is a complicated one, and that there are many doubtful points to be cleared up. The climate was drier and the woods had become thinner. Settlements spread inland, and corn-growing, which was first introduced into Norway with the megalithic cultures, was further developed. Wheat was cultivated in Norway in the Bronze Age, and much millet or panic grass (*Panicum miliaceum*) was grown in Denmark, where present conditions are not suitable for it. The development of agriculture helped the colonization of inland areas by providing reserves of food for the severe winters.

In sub-Atlantic times there was an increase in precipitation of perhaps 200 mm. in parts of Norway. Erosion became more active and some peat deposits were sanded over. The establishment of the present birch zone in the Scandinavian mountains dates from this period. The change from sub-boreal to sub-Atlantic conditions is thought to have taken place in the North about 600 or 500 B.C. Many Iron Age remains rest on sub-Atlantic peat; one of the oldest of these, the Hjortspring boat, is dated about 400 B.C. The change seems to have been sudden, and it is possible that a memory of it was preserved by the references in the Eddas to Fimbul winter. Although winter temperatures may not have been much lower the increased quantities of freshwater would favour the formation of ice in the fjords. The long winters, dull wet summers, and occasionally late springs must have been disastrous to agriculture. Hasund has suggested that it was in the Iron Age that people in the North first began systematically to stable their animals and to store up hay and leaves for winter use. Iron Age sites are markedly less numerous than are those of the Bronze Age when followed inland or northward (see maps on p. 221). Along the coasts people could fall back on the contributions of the sea to eke out the food supplies during winter.

The history of climatic fluctuations in our era is briefly sketched. When sub-Atlantic times should be considered to end is uncertain. There appears to have been a definite improvement in Roman times, with a dry period about A.D. 300; this was followed by another increase in the rainfall about A.D. 400. If the last two changes affected England they might help to explain the course of colonization in the Fens. A

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wet period accompanied by cloudy summers and little evaporation would give rise to water-logged soil, rivers of high volume, and frequent floods, while during a dry period, like last summer, the rivers would shrink and much of the land might be cultivated. In the dry sub-boreal period the fens were fully exploited by the early Bronze Age population, but they have yielded very few Iron Age objects dating from wet sub-Atlantic times; in Romano-British times they again carried a large population, only to be avoided in pagan-Saxon times. The contrast between Romano-British and early Saxon conditions is very marked. It may be that these alternate favourable and unfavourable periods in the Fens are to be explained by movement of land or sea; but it may be worth while to enquire whether alternations of wet and dry periods would not have very similar results.

Much of this book deals with subjects that were discussed by Wright in *The Quaternary Ice Age*, 1914; but since that date a great deal of work has been done. Dr Nordhagen has gathered a large amount of information from half a dozen different sciences, and has presented us with a most interesting and stimulating synthesis. His book is a very good example of what can be done by co-operation between allied sciences. It only remains to add that if this excellent little book were translated into English and published at as reasonable a price as the original it would deserve a warm welcome in this country.

R. U. SAYCE.

RUSSIAN MEDIEVAL ARCHITECTURE. By D. R. BUXTON. *Cambridge University Press*, 1934. pp. XIV, 112, with 108 plates, plans and text-illustrations. 25s.

Mr Buxton has broken new ground in this pictorial survey of the medieval architecture of Russia. Apart from somewhat casual accounts of the churches of Kieff and Vladimir little or nothing has been written in Western architectural literature on the subject, and though we may conclude that the Russians at no time added anything appreciable to the history of architectural development, yet their buildings are in a high degree interesting as the authentic product of the greatest of the Slav nations.

It should be noted that the author continues his survey down to the Baroque, though the medieval period in Russia may be said to have terminated with Peter the Great. The book furthermore includes a survey of the churches of Georgia and Armenia, a subject which has occupied a prominent place in recent architectural literature.

That early Russian architecture is the direct offspring of the Byzantine has long been recognized, and 11th-century Kieff was acclaimed by contemporaries as 'the emulator of Constantinople and the fairest ornament of the Greek world'. Its glory however was short-lived and the capital was transferred in 1109 to Vladimir. Here there survives a remarkable group of stone churches which are perhaps the most interesting memorials of medieval Russia. The carved decoration is of extraordinary interest and has affinities not only with Armenia but also with the Romanesque art of northern Italy. The later Russian churches are more curious than beautiful, though the bell-tower at Yaroslav is dignified if ill-proportioned.

The book is illustrated by the author's own photographs which are both numerous and well-reproduced. We regret only that the author gives no exact references for his dating of the major examples, which would have added greatly to the weight of his conclusions.

A. W. CLAPHAM.



A TRANSYLVANIAN VILLAGE—HUNDEBTÜCHELN

Ph. O. G. S. Crawford

Antiquity

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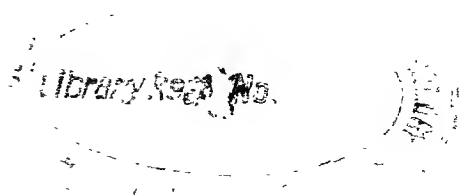
DECEMBER 1934

Editorial Notes

THE archaeology of Great Britain is now an active and flourishing pursuit, with a growing number of students devoting all or most of their time to it. Like any other branch of science it needs an *apparatus*, and it is therefore opportune to take stock of the existing state of affairs.



The chief units in the organization of research are usually the learned societies devoted to its advancement. They provide a forum for the promulgation of new discoveries and ideas, and set a standard of achievement. Membership is usually open to all serious students, and to any others willing to pay the annual subscription. Societies publish journals and memoirs, form libraries for their members, and accumulate funds which are of course indispensable for conducting excavations or any other form of research. The less spectacular but equally necessary bibliographies and annual summaries of work done have not in the past received adequate attention. We have had (since Professor Haverfield began it in 1910) a series of admirable annual reports on Roman Britain, published by the Society for the Promotion of Roman Studies. The Congress of Archaeological Societies publishes an annual statement that has evolved from the old and valuable Earthworks Reports. But these publications, all excellent in their way, do not quite cover all the ground.



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It is therefore good to know that the Royal Archaeological Institute is publishing a classified list of the year's publications. This appears in the Institute's annual volume, the *ARCHAEOLOGICAL JOURNAL*, now in its 80th year; and we understand that *separata* are not being broadcast. It is of course quite a reasonable demand that those who would profit by the Institute's enterprise should become members, or at least buy the *JOURNAL*. (Members of the something-for-nothing brigade are well known in the offices of *ANTIQUITY*).



A parallel and complementary task has been begun by the Prehistoric Society of East Anglia—a society which, we are told, 'is the oldest and only large society in Great Britain specially devoted to the study of prehistory'. It consists of notes on excavations in England, Scotland and Wales during the preceding year, classified chronologically, and is compiled by Dr Grahame Clark the Editor (England), Professor Gordon Childe (Scotland) and Mr W. F. Grimes (Wales). The current issue occupies nine pages of the Society's seventh volume of *Proceedings*, for 1933. We have already attempted to do something like this in *ANTIQUITY* but only in a rather scrappy and disjointed way; it is a task more for a society rather than for a free-lance journal.



Logical minds may inquire why three nation-wide societies are needed; whether all would not gain by amalgamation? The question is of no practical import and therefore purely academic. We admit to sympathy with the idea, but as realists we must also admit that the existing English system has counterbalancing advantages. The undertakings described above could never have been initiated by a single autocratic society; more probably they would have been smothered at birth by it. Too much logic often kills initiative and retards progress; we have only to cross the Channel to see that. Societies keep archaeology alive and keep it interesting; and there is plenty of room for those which exist.

EDITORIAL NOTES

The excavation season has not passed without the usual demands for sites to be left uncovered. The problem is one which must be considered in relation to the circumstances of each particular case. The task of re-burying a ziggurat or even a Cretan palace is so immense that to attempt it would be to divert to a negative purpose a very considerable proportion of the comparatively scanty funds at present available for archaeological discovery.



On the other hand, to attempt, as Sir Arthur Evans has bravely attempted at the Minoan Palace of Knossos in Crete, to preserve the ancient fabric by systematic reconstruction and protection is again an extremely costly policy, and is moreover one which is peculiarly liable to abuse. Reconstruction almost necessarily involves a certain element of guess-work which will permanently detract from the scientific interest of the restored monument.



If we turn to archaeological excavations in this country the problem is the same in kind if not in degree. The Office of Works, after many years of laborious experiment, has brought nearer to perfection than ever before the art of consolidating an ancient structure. But this work is not only costly at the outset, but its permanency is to some extent contingent upon continuous supervision year in and year out. Up and down the countryside are many gloomy instances of excavated foundations of Roman and Medieval buildings which, inadequately protected from the ravages of frost, vegetation, and other interference, have lost by exposure far more than they have added thereby to knowledge.



Generally speaking, it is far safer—particularly after the necessarily destructive methods of modern scientific excavation—to re-bury excavated foundations unless they are (*a*) unusually complete or instructive, and (*b*) on that account sufficiently important to claim in perpetuity the skilled (and necessarily costly) supervision of the Office of Works or of some local body working in consultation with it.

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The present number completes the eighth year of ANTIQUITY. According to present-day opinion it is held that a 'generation' in the life of a periodical must be put as seven years, and therefore we may feel pleasure in having survived the first stage, one which has been so affected by the Great Depression and the most unfavourable time imaginable for establishing such an undertaking.



We hope that we may survive yet another 'generation' though, to put it quite plainly, it means that to do so we must retain the support of all our present subscribers, and that we must attract others. We hope we shall do both. So far as the first are concerned we would ask their attention to the notice printed below, and say once more that an early response is a very considerable help to us.



VOLUME IX, FOR 1935

A renewal form for subscriptions for 1935 is inserted in this number and we shall be very glad if our subscribers will return it with their cheques as promptly as they may find convenient. The forms are omitted from copies sent to subscribers who pay through banks or who have paid for 1935 in advance.

Rome in the Middle East*

by SIR GEORGE MACDONALD, K.C.B.

THAT which hath wings shall tell the matter', says the Preacher. Readers of ANTIQUITY do not need to be reminded of the fresh connotation which aerial photography has given to the text, but never before has its truth been so convincingly driven home as it is by the latest achievement of archaeological aviation. It may be said at once that this account of the Eastern frontier is one of the most important and illuminating contributions ever made to the unwritten history of the Roman Empire. Incidentally, as M. Cumont points out in his lucid and appreciative introduction, its usefulness as a guide for future explorers can hardly be over-estimated. Hundreds of miles of a *terra incognita* have been thoroughly reconnoitred, so that exponents of the older and less spectacular methods now know exactly where it will profit them to ply the spade and pick. And it is certain that their reward will be rich. Though the sandstorms of the desert may bury, they are in other respects far less destructive than cultivation. In course of time the wonders of Dura-Europos will be repeated or, it may be, eclipsed at other sites. Scholars will then be able to reconstruct with confidence the whole organization of the army of the East, a subject that has hitherto been well-nigh hopelessly obscure. A flood of new light will be thrown on the relations of Rome, first to the Parthians, and then to the Sassanians. At long last we shall learn something of the losing battle which Roman civilization had to fight when it was transplanted to a Semitic countryside, studded here and there with Hellenic towns,—something, that is, of the gradual process by which the legions of the West were slowly but surely transformed into a host of Orientals.

* *La trace de Rome dans le désert de Syrie, le limes de Trajan à la conquête Arabe, Recherches aériennes* (1925-1932), by A. Poidebard, with an introduction by F. Cumont. Published for the Haut-Commissariat de la République Française en Syrie by Paul Geuthner, Paris, 1934. pp. xxiv, 213, with map and atlas of 161 plates. 350 frs.

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Meanwhile Père Poidebard has given us enough to study and digest. Experts will be keenly interested in the page or two which he devotes to technique, while even laymen will be filled with admiration for the manner in which he and his collaborators of the French Air Force have overcome the peculiar climatic and other difficulties with which they had to contend. As a rule, a height of 1000 feet or so proved most convenient. Not seldom, however, they flew much lower. One route with a length of 150 miles was surveyed from less than 80 feet above the ground. In a country such as our own the best results are, of course, obtained in the early morning or the late afternoon, when the shadows are at their longest. In Syria these hours are the most fruitful too. But occasionally the markings obstinately refused to reveal themselves, unless the camera was trained almost directly against a sun that was already high in the heavens (PLATE I), or again unless the view was taken under the shelter of a thick canopy of cloud. Still more surprising is it to be told that by a system of screening, analogous to the infra-red process, hidden walls could be made to appear upon the plate, although their presence was not betrayed by so much as a solitary wrinkle on 'the desert's dusty face'. Wherever practicable, discoveries made from the air were confirmed by investigation on the surface. Sometimes ordinary trial-pits were dug, but recourse was frequently had to more novel expedients. Thus, a track that was visible only from above might be verified by giving a string of camels their head. Vegetius long ago remarked that these animals have an almost uncanny instinct for treading in the long-obliterated footsteps of their predecessors.

Eight laborious years of such work have gone to the composition of the picture which is presented in the magnificent series of plates now put at the disposal of historians. Its significance can best be measured by a comparison with the relevant section of the article 'Limes' in Pauly-Wissowa's *Real-Encyclopädie*, which was rightly made the datum line for the new enquiry. This is a masterly summary by Fabricius of the facts accessible in 1926, but at almost every turn the writer finds himself hampered in his endeavours to discern a coherent scheme. Now and again short stretches of road and isolated *points d'appui* had been identified beyond dispute. A few hints could be gleaned from stray inscriptions. That, however, was practically all, for the scanty references in ancient literature did little more than make darkness visible. On Père Poidebard's map the whole outline is as clear as noonday, and we have before us in its completeness one more monument of the

ROME IN THE MIDDLE EAST

genius of Rome, one more proof of the sagacity of her administrators and the consummate skill of her military engineers.

Alike in its political and in its geographical aspect the problem they had to solve was extraordinarily complex, and it assumed different forms at different times. When Pompey annexed Syria, Rome was brought face to face with Parthia. Taught by the experience of Crassus and Mark Antony, Augustus preferred diplomacy to arms as a means of maintaining peace. Accordingly he encouraged the growth of a group of buffer states. Palmyra, the most conspicuous of these, was also the most typical. As the chief emporium of the rich trade between the Persian Gulf and the West, this ' Venice of the Desert ' was the greatest of the caravan cities (PLATE II). The formidable force of mounted archers which she had at her disposal sufficed to ensure the safe transit of her merchandise through the sandy wastes, while at the same time it served to protect Southern Syria against the desultory incursions of Bedouin raiders. On the north the defence was not dissimilar, although in different hands. As the power of Parthia waned with the passage of time, the relation of Rome to the buffer states tended more and more to become that of suzerain to vassals. It was not, however, until Trajan pushed across the Euphrates and occupied Mesopotamia that anything of the nature of an Eastern *limes* came into being. Our history books have taught us that the tide of conquest ebbed and flowed during the centuries which followed. The full effect of this upon the frontier we are now for the first time able to visualize.

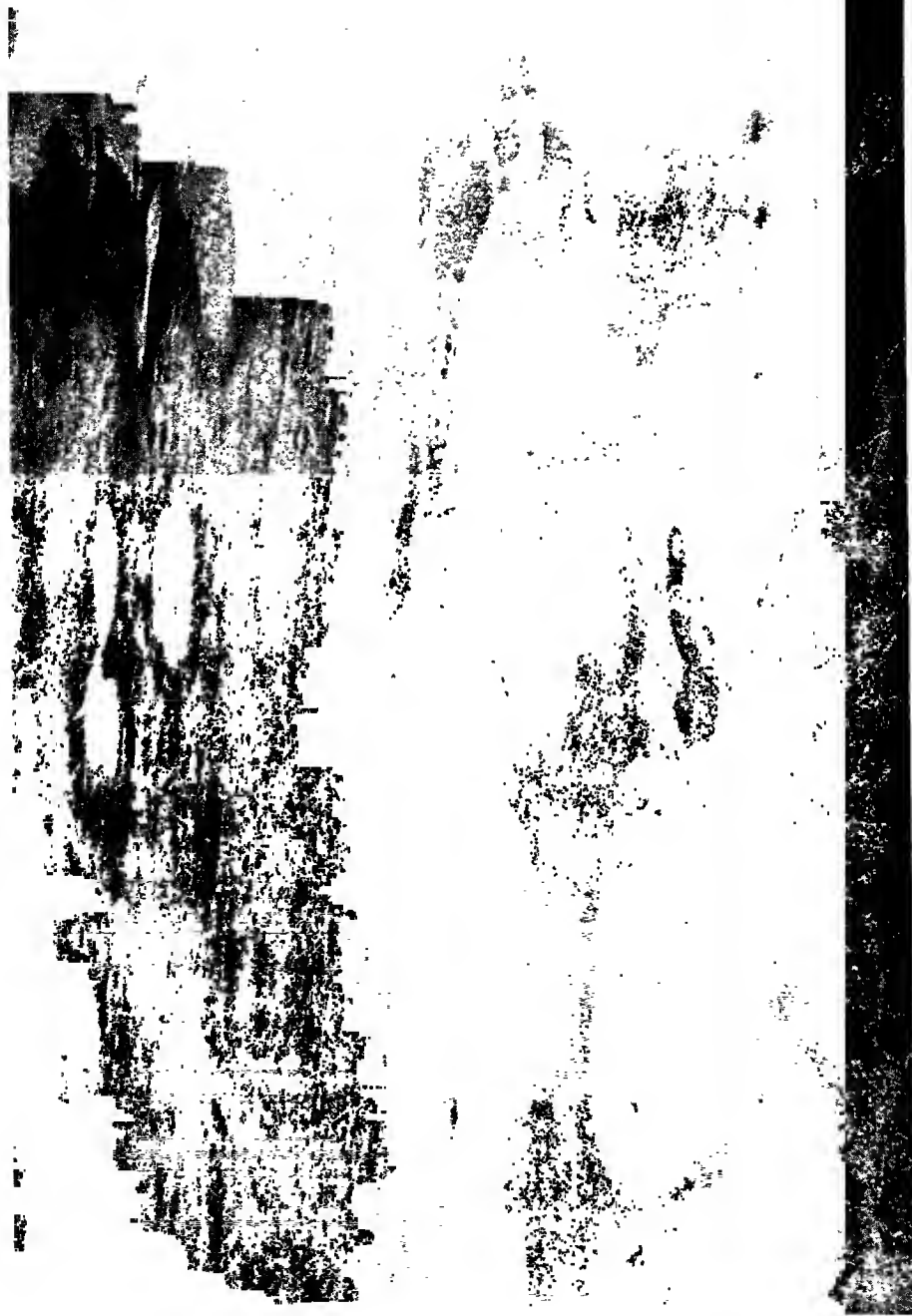
The sequence of events in the north can be quickly summarized. There the prudent Hadrian promptly withdrew to the right bank of the great river. The check, however, was only temporary. Under Marcus Aurelius the forward movement was resumed. It was continued more or less intermittently until the beginning of the third century, when Septimius Severus, himself an ' Easterner ' alike by temperament and by conviction, completed the task which Trajan had begun and transformed Mesopotamia into a Roman province. Though more than once severely shaken, the truly ' scientific ' frontier which he drew between the Euphrates and the Tigris held firm for a century and a half. But it failed to withstand the storm that broke over it in A.D. 363, when Julian's disastrous expedition against Persia, ending as it did in his death, transferred the reins of government to the incompetent hands of Jovian. The humiliating terms of peace involved the cession of Mesopotamia and the withdrawal of the Romans to a line that was far less well adapted for defence.

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The story of what happened in the south is less easy to compress. At first Palmyra flourished amazingly in her trade. As a political entity, on the other hand, she had (in Gibbon's phrase) 'sunk into the bosom of Rome'. On the Column of Trajan we can see Palmyrene archers following the Emperor into Dacia, while presently, though not perhaps until the reign of Hadrian, the city received a Roman garrison, retaining however her own troops, trained and equipped for desert warfare. Finally Septimius Severus conferred on her the status and privileges of a Roman colony. All the while the Syrian border was reasonably safe. But in 227 a new portent rose above the Eastern horizon. Ardashir, the founder of the dynasty of the Sassanidae, pressing west and north, overthrew the Parthian monarchy and proclaimed himself 'King of Kings'. Three years later he entered the lists against Rome and challenged her title to the possession of any territory west of the Aegean. Equilibrium was temporarily restored by Severus Alexander, though at a heavy cost. But, in spite of the efforts of succeeding emperors to preserve the balance, a new and graver crisis developed in the reign of Gallienus when the *catafractarii* of Shapur, the son of Ardashir—horsemen whose steeds, like themselves, were clad in mail—broke down all resistance, overran Syria, sacked the great cities like Antioch, and penetrated into Asia Minor. At this juncture the whole of the East would have been irretrievably lost, had Palmyra decided to throw in her lot with the Persians.

Her prince Odenathus, however, elected to keep faith with what seemed to be the losing side, and in so doing he inaugurated the meteor-like career of the Palmyrene Empire. Gathering his own forces and a swarm of mounted Bedouin Arabs, he hung upon the flank of Shapur as he returned laden with booty to Ctesiphon, harassing his march and ultimately inflicting on him a humiliating defeat. During the next few years he carried the war into the enemy's country and recovered, in the name of Rome, practically all that the Persians had won. Content with the shadow of sovereignty, the grateful Gallienus recognized him as virtually a co-regent in the East. He had not enjoyed the distinction long before he fell by the hand of an assassin. His son Vaballath being a mere child, the queen-mother Zenobia, one of the most remarkable figures in history, took command of the situation, maintaining the form of allegiance to Rome until the time should be ripe for abandoning all pretence. When she thought that the moment had arrived, she signaled her declaration of independence by sending her troops to invade and annex Egypt. But the Imperial master whom

PLATE I



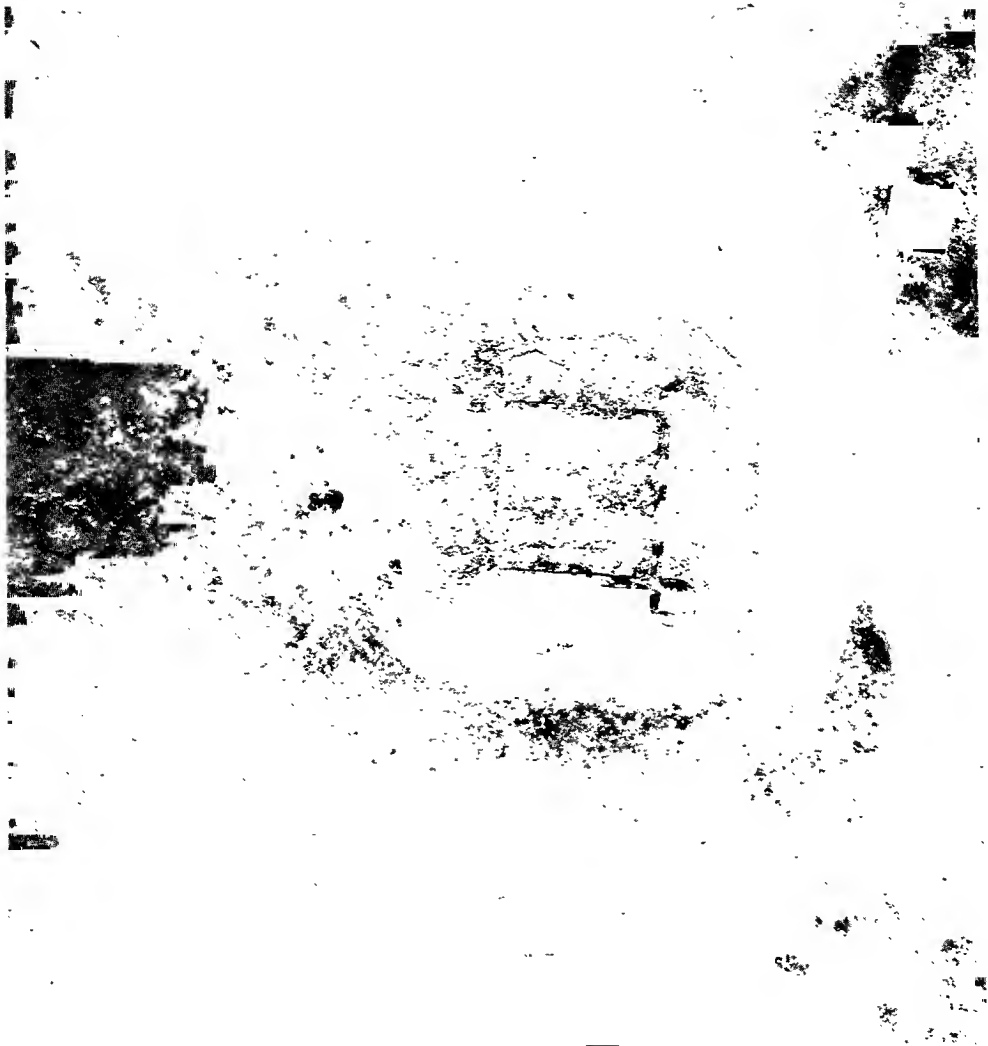
DEYR SIMÂLI INTERSECTION OF TWO ROMAN ROADS, INVISIBLE EXCEPT FROM THE AIR. PHOTOGRAPH TAKEN AGAINST THE SUN.
Plates I-XXIII, by permission of M. le R. P. Pouchard

PLATE II



THE TEMPLE OF BAAL AT PALMYRA

PLATE III



ḤĀN AL-QAṬṬĀR, WITH CISTERN AND LATER ACCRETION OF BEDOUIN ENCLOSURES

PLATE IV



ROMAN ROAD FROM BOSTRA TO DAMASCUS, WITH WATCH-TOWER

PLATE V

HAN AL-JANCOÛRA, WITH RESERVOIR AND AQUEDUCT LEADING TO CISTERN



PLATE VI



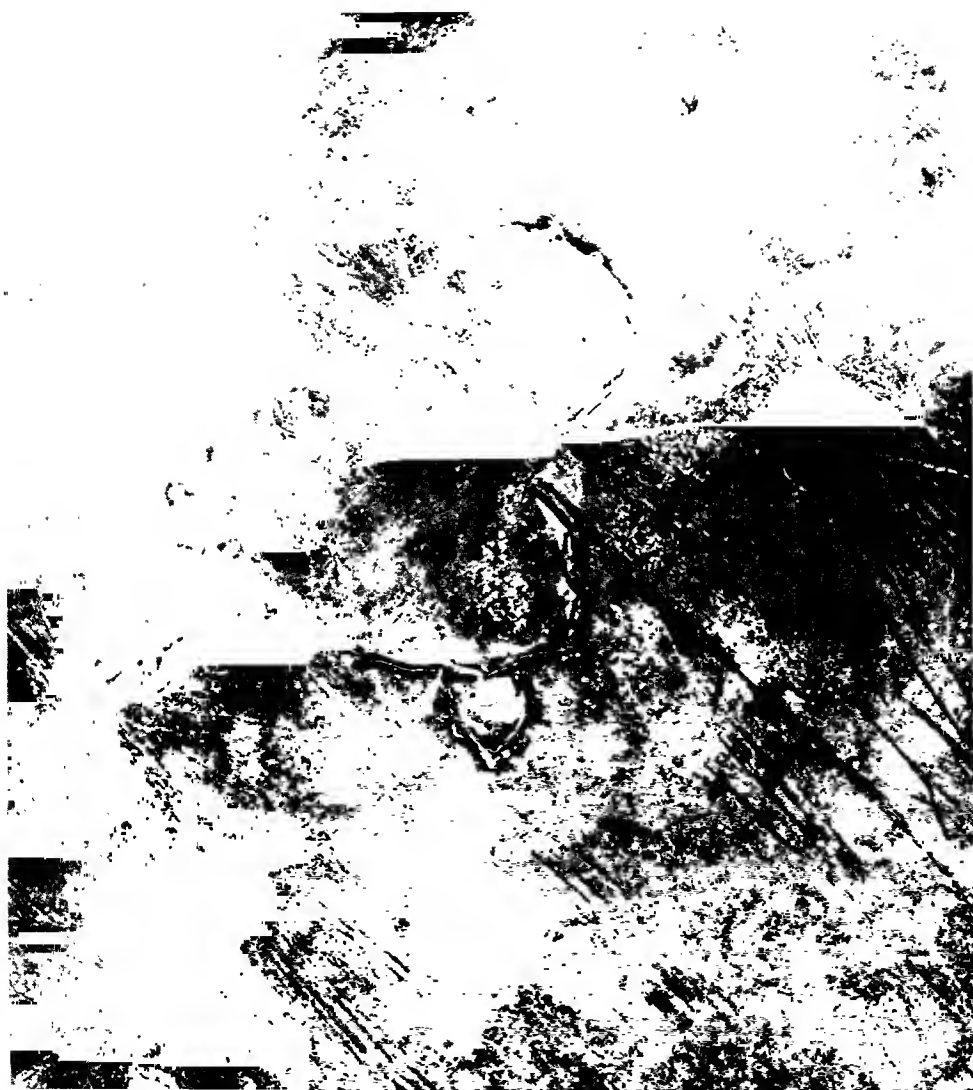
THE DAM AT ḤARBAQA

PLATE VII



ROAD FOR CARAVANS FROM PALMYRA TOWARDS THE PERSIAN GULF

PLATE VIII



BEDOUIN ENCLOSURE

ROME IN THE MIDDLE EAST

she had to encounter was no longer Gallienus. He was the far abler and more energetic Aurelian.

As soon as he had freed himself from dangerous embarrassments elsewhere, the new Emperor turned his face towards the East. Overcoming the stubborn opposition of Zenobia's army, he crossed the desert and laid siege to her capital. The queen attempted to fly but was captured, and the city opened its gates rather than endure the horrors of a blockade. The clemency which the victor extended to both was ill-requited on the part of the Palmyrenes. Hardly had Aurelian returned to Europe than he learned that they had risen in revolt and massacred the garrison he had left behind. Before they had leisure to repair the dismantled defences, he was once more at their gates with an army. This time no mercy was shown. Not only the rebellious citizens, but women, children, old men and peasants are said to have been ruthlessly butchered. That was the end of Palmyra. To quote Gibbon once more, 'the seat of commerce, of arts, and of Zenobia, gradually sunk into an obscure town, a trifling fortress and at length a miserable village'. Its failure to rise from its ashes was not, however, solely or even mainly due to the dreadful nature of the vengeance that had been exacted. The *raison d'être* of the caravan city had disappeared. The new power that had arisen on the farther side of the desert made very different arrangements for putting the merchandise of the East upon the Roman market. When the caravan trade did revive at a later time, it was in the hands of the Arabs.

The well-worn tale was worth recalling at some length, since its climax has a most important bearing on Père Poidebard's researches. Palmyra fell in 273. There followed twelve troubled years, darkened by the murder of Aurelian himself and then, in quick succession, of the six emperors who came after him. In 285, however, the accession of Diocletian opened the way for an era of more settled government. Among the measures carried out by his strong hand was a thorough-going reorganization of the Eastern Limes. The situation that had to be met was entirely new. Hitherto nothing more had been needed than a line of forts along the fringe of Syria. Now the bulwark of Palmyra was gone. Gone, too, was the caravan trade, and with it the necessity for a powerful mobile force to protect the routes that traversed the desert from west to east. Instead, there was an urgent call for a continuous barrier which should provide the Syrian towns with an effective defence against attack by the mailed cavalry of the Persian king, and behind the shelter of which the traffic between Arabia and the north

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could pass to and fro unmolested. To this period belongs the road-system known as the *strata Diocletiana*. That many of the Limes forts are of the same or of a later date is evident from their outline (PLATE III), the treatment of the corners presenting a notable contrast to what was usual in the first and second centuries.

To give a detailed description of the whole would demand far more space than is here available. Nor is it at all likely that the different stages of evolution will be satisfactorily disentangled until a certain number of the key-positions have been excavated. The main features, however, already stand out with unmistakable distinctness. The principal line ran north from Bostra to Damascus, whence it swung north-eastwards to Palmyra and then north again to the Euphrates, which was reached at Sura. From Sura it followed the bank of the river down to Circesium, where it joined the Mesopotamian frontier, as defined by Septimius Severus, and made its way north-eastwards past Singara to the Tigris. Its sinuous course of more than 600 miles was determined by two weighty considerations. The first was the equipment and tactics of the foe who might be expected to assail it : except when it has the Euphrates in front, it clings persistently to ranges of rough hills or to stretches of broken and rocky ground, on which it would be next to impossible for heavy cavalry to manoeuvre (PLATE IV). The second was the indispensability of an adequate water-supply for the men who were to hold it : a meteorological chart shows that within this arid region there is a belt of comparatively greater humidity, while the air-survey proves that the Roman engineers must have been fully alive to its existence since they were careful never to go beyond it.

No attempt was made to construct a *vallum* such as we know so well in the West, perhaps because material was hard to come by, perhaps because in that world of drifting sand its ditch would have been quickly filled. Instead, the Limes reverted to type and became a road connecting a chain of fortresses and forts and observation-posts, more or less regularly spaced and each in touch with its neighbours. That, however, was not regarded as sufficient. Out in the desert and parallel to the principal road were other roads, similarly fortified, as were also the transverse roads that served to complete the network. Nothing is more impressive than the evidence of the immense pains taken to safeguard the water-supply. Ruined wells and cisterns for storage abound. If there was no spring in the immediate vicinity of any spot that was otherwise appropriate for a fort, a reservoir would be formed and its contents tapped by an aqueduct (PLATE V). Occasionally

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a great dam would be built (PLATE VI). The construction of the roads displays a similar readiness in adapting means to end. The method employed depended on the nature of the ground. Wherever there was a risk that the annually recurring rains might produce a quagmire, solid blocks of paving were most carefully laid down. Usually, however, the surface was so hard and dry that any part of it could be used as a thoroughfare, and then all that was done was to indicate the track by rudimentary kerbing on either side. Even when not visible on the surface, the position of these kerbs is generally recognizable from the air (PLATE VII). Nor is it always necessary to search for them. In many cases the exact direction taken by the Roman road can be traced by following the forts and posts with which it was dotted.

Save for a short-lived experiment in Britain, the *limites* of the West consisted of single lines. Why was the usual practice departed from in Syria? Possibly in order to exercise command over the wells and oases for some distance in front of the Limes proper. If the water-supply were in Roman hands, the movements of the Persian armies would be grievously hampered. Doubtless, too, its possession would be a valuable asset in dealing with the Bedouin tribes. That the Romans had intimate relations with these nomads is beyond question. In their seasonal migrations the latter must have made their way through the carefully guarded passes of the Limes twice a year—once in spring when the outer region became a Sahara, while pasture was abundant on the slopes of the mountains to the west, and again in late autumn when, for a brief spell, the annual rains made the desert blossom like the rose. That the relations were, sometimes at least, those of allies is apparent from one of Père Poidebard's most interesting discoveries. At several points of great strategical value for the defence of the Limes he detected camps of a form so peculiar that one cannot believe that they were intended for the accommodation of Roman troops (PLATE VIII). They must have been for the housing of Bedouin auxiliaries. The *antennae* are obviously designed to facilitate the driving in of their flocks.

So well and wisely had Diocletian planned that, except for the one 'rectification' which has been already alluded to, his frontier remained the frontier of the Empire until more than three centuries after his death. The exception, it will be remembered, was in the north. After the defeat of Julian, the successor of the Apostate had to surrender Nisibis and Singara and to content himself with a shorter and more vulnerable line, running southwards from Dora towards Circesium.

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Otherwise the heritage of Diocletian was transmitted intact to the Byzantines. In their hands it sufficed to keep the Eastern hordes at bay until 636, when the Saracens crashed their way through at the bloody battle of Yermak and drove Heraclius out of Syria. We may be sure that during its long life it witnessed many vicissitudes. To meet the changing requirements of the art of war, new forts would be built, old forts deserted or remodelled. When we remember that the aeroplane record covers the whole of these and indeed actually includes the early caravan-tracks used by the Palmyrenes before the advent of the Romans, it will be manifest that the interpretation of Père Poidebard's map in all its bearings is likely to absorb the labours of several generations of scholars. Fortunately thanks and congratulations do not need to be delayed until the process is completed. They can be unreservedly offered to him now.

NOTE. The Editor wishes to thank Père Poidebard for his kindness in lending the original air-photographs from which the plates (I-VIII) have been reproduced.

Britannia

by HAROLD MATTINGLY

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THE storied name which stands at the head of this paper has an immense range of association and interest. Lest the gentle reader be frightened at the outset by too extensive a prospect let us define at once the limits we have set to our present inquiry.

There is a knowledge of Britain that is characteristic of this and the last century. It is a knowledge founded on the results of numberless excavations on surveys of roads, forts and cities, on intensive study of stratification and of the evidence hidden in broken pots and half obliterated coins. It is a knowledge that must have made up a remarkable whole in the mind of a scholar like the late Professor Haverfield ; that still makes up such a whole in the minds of a handful of scholars still living today. For most of us this knowledge is only to be gained at second-hand from the summarized reports of the experts ; at best we may be able to add a personal acquaintance with some small part of the subject. It is a knowledge that advances progressively and comprises most of the hope for the future. With it, however, the present paper is not mainly concerned. We turn rather to that other branch of knowledge that is represented by the sum total of what ancient writers have reported of Britain and its inhabitants. It is a kind of knowledge that was probably more firmly retained in the memories of scholars of a century or more ago than of most experts of today. We have so many first-class books of reference to rely on that we are content that the information should be there at hand in reserve, until some particular occasion leads us to turn up the authorities. Such knowledge, at its worst, is heavily alloyed with error and is, in all cases, difficult to control. At its best, however, it does speak to us of aspects of life and civilization of which archaeology has seldom much to say ; and it may, therefore, be worth our while to spend a little time in ranging over its field and selecting what seems to us most reliable and interesting. The material lies before me as I write in the colossal *Monumenta Historiae Britannicae*, published in 'The Rolls Series' by royal command in 1848. Brief as must be our survey in one short paper, we may find some interest and profit in observing the nature of our ancient authorities on British history and civilization, in studying more closely one or two of the more

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famous of them, and in trying to form our own conception of the impression that Britain and its peoples made on the inhabitants of the Roman Empire at the different stages of conquest and occupation. As an appendix we add a short account of the representations of Britannia in Roman art, that is to say on Roman coins—the one serious source of our information. The subject has of course been treated before, but it has an obvious bearing on the main theme of our paper ; the material has been increased during the last few years and, even in the older and more familiar part of it, it should be possible today to offer something of novelty and interest. A brief study of the type of Britannia in our modern coinage will form a natural end to our paper.

Our literary knowledge of Britain is derived mainly from two kinds of sources—the ancient writers on geography and the ancient historians, who came to speak of Britain in its relations to the Roman Empire. Among the former we think at once of Strabo, who could draw on the discoveries of Julius Caesar and who could perhaps have made more use of those of Pytheas of Marseilles, had he held a less unfavourable opinion of his veracity ; of Pomponius Mela, who writes with the prospect of a great increase in knowledge to follow the conquest of Claudius ; of Pliny the Elder, who dealt with Britain methodically in his geographical survey of the ancient world and, at various odd points, where examples from Britain could be fitted into his encyclopædia of learning ; of Ptolemaeus and the Itineraries, with their close detailed accounts, that form the basis of our exact knowledge. Among the historians we are fortunate to be able to number Julius Caesar, who reports his own expeditions with his accustomed mastery ; Tacitus, who records the course of Roman conquest and who, in his ‘ *Agricola* ’, has given us the only surviving monograph on our island ; Dio Cassius, who chronicles with some fullness the revolt of Boudicca and the expedition of Severus ; the Panegyrists of the third to fourth century who throw some light on the adventure of Carausius—not to mention the many others who here and there touch on British history in its place in the Roman Empire. There remain the occasional references to Britain and things British in general literature—on the whole, most disappointingly scanty, but adding up in the sum to a not negligible amount. Britain herself made no contribution to the literature of the Empire. How much would we not give for an account of British life by some Roman Briton, who might have brought to his local interests the resources of literary style ! Here we find a lacuna in our knowledge,

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which itself, however, is not without its own significance. It marks clearly one of the limits of Roman civilization in our island.

Before Roman times Britain lay almost outside the range of ancient history and even of ancient myth. Even that famous traveller, Hercules, was never brought quite so far west in his wanderings. There is one bare reference to a visit of Ulysses to Scotland. It was left for later days to link Britain to the great cycle of ancient legend by bringing thither 'Brute the exile man'. Rumours of the tin isles, the Cassiterides, were current in the time of Herodotus. But the ocean beyond the Pillars of Hercules was a 'closed sea' of the Phoenicians. They guarded their monopoly of these waters with zealous care. We all know the story of the Phoenician galley that decoyed an inquisitive stranger on to the sand-banks. Pytheas of Marseilles was the first to adventure out into the unknown and bring back some more exact knowledge of the *νῆσοι Πρεττανικαί*, of Albion and its neighbour, Ierne, of furthest Thule and of the numberless little islands that made up the group. C. F. Angus has recently written of him in *GREECE AND ROME* and we may refer our readers to his delightful article. The expedition of Pytheas fell, it seems, soon after the first Punic War, and was, no doubt, prompted by the opportunity offered through the decline of Carthaginian sea-power. Pytheas undoubtedly travelled widely in Britain and brought back information of the highest value. But he was unfortunate in his reception by the learned world. His adventurous enterprise was rewarded with the most unjust reputation of being a colossal liar—an injustice in which as great a geographer as Strabo bears a dishonourable share. But from the time of Pytheas onwards Britain was no longer the completely unknown island. Curiosity had been aroused and had at least a material to work upon. Yet so little general impression had the voyage of Pytheas made that Julius Caesar could report, when he thought of crossing to Britain, that he could find little reliable information and that only from Gallic merchants, who had travelled in the maritime districts facing Gaul.

Caesar, as many of us will remember from our school days, made two expeditions to Britain, in 55 and 54 B.C., at first to reconnoitre, then to achieve some sort of conquest. He won some engagements, crossed the Thames—riding on an elephant, according to one account—and compelled Cassivellaunus to give hostages and pay tribute. Great expectations were however grievously disappointed. We learn from Cicero's letters how the hopes of gold and silver treasure were defeated; how, in fact, there was as little to expect as to fear from the island. No

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gain could be expected except in captives, and even these not of a highly trained type : so says Caesar, as if to contradict in advance Bernard Shaw's amusing fancy of a British secretary of Caesar. Even the British pearls,* of which much had been heard, proved to be inferior in size and quality : none the less Caesar dedicated a breast-plate adorned with them in the temple of Venus Genetrix. Yet Caesar's exploit touched the Roman imagination. Britain, 'divided utterly from the whole world', set beyond the ocean as in an orb of its own, had been forced to open a door to the advance of the Roman arms. The flight of the Roman eagles across the sea to Britain seemed to symbolize the completion of the Roman domination of the world.

Caesar himself was fully conscious of this aspect of his adventure. It is in fact hard to find serious strategic justification for his invasion. Finding, as we have seen, little reliable information to work on, he deemed it advisable to send in advance Commius the Atrebate to spy out the land. With the details of his fighting we are not concerned, but turn rather to his sketch of the conditions that he encountered in Britain, in the twelfth and following chapters of the fifth Book of his Gallic War. The sea-coast was held by invaders from Belgica, the interior by the native Britons. The population was dense ; houses, built like the Gallic of wood and mud, were plentiful ; there was great wealth of cattle. For exchange the Britons used bronze or gold coin or iron nails, fixed at a certain weight. Inland was found tin ('white lead') ; near the coast iron, but only in small quantities ; bronze was imported. Timber was plentiful as in Gaul, but beech and pine were missing. Hares, fowl and geese were kept for amusement and pleasure, but it was forbidden to eat them. The climate was milder than that of Gaul, and the frosts were slighter. Most civilized and like the Gauls were the people of Kent. In the interior were wilder folk, who did not in general sow grain, but lived on milk and flesh and dressed in skins. All the Britons were accustomed to dye themselves with woad (*vitrum*), which gave them a grim appearance in battle. They wore their hair long, but shaved the whole body except head and upper lip. Wives were held in common, usually within families, and the children were considered to belong to the woman's first husband. Later, in the thirteenth and following chapters of Book VI, Caesar tells us something of the Druids, that strange priestly caste, which he had already encountered in Gaul. Britain ranked as the home of the caste

* Still fished for ; see ANTIQUITY, September 1934, p. 342.—EDITOR.

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and was visited by aspirants for admission. The Druids were not only interpreters of religion, but teachers of the young and judges in serious cases. They spent long years in acquiring their training and committed thousands of verses to memory. They had much to teach about the immortality of the soul, and the nature of the world and the heavenly bodies. They held a position of great privilege and power and were exempt from military service and taxation.

From the time of Julius Caesar onwards, Britain, if still in all but name independent, lay within the Roman orbit: Catullus's 'horribiles ultimi Britanni' have ceased to be quite so uncouth or remote. Cicero jokes with his friend Testa about British war-chariots and charioteers. Propertius compares the make-up of a Roman beauty to the 'infecti (painted) Britons'. Is the epithet 'virides Britanni' of Ovid a description of a blue-green dye? Something is known of the physical character of Britain—flat and fertile, but still with many hills, dowered with woods, lakes and great tidal rivers. The natives, less tawny-haired than the Gauls, are large, but loose of limb. They drink a blend of grain and honey. They are fond of gew-gaws, imported from Gaul. Rumours from Ireland speak of a people, wilder still, given to cannibalism and the eating of dead kinsmen. The size of Britain is more or less correctly understood, its exact shape less certainly. An erroneous belief that was slow to disappear was that it lay between Gaul and Spain. The 'Pretannic' islands now become the 'Britannic'. The name of the people occurs in a variety of forms—Britanni, Britanni, rarely Brittanni, and Brittones.

When Augustus ended the civil wars the addition to the Empire of Britain was, with the recovery of the standards from the Parthians, the exploit which was to round off his fame. The fact that poets so high in the imperial favour as Virgil and Horace come back again and again to the project proves not only that it was in men's minds, but also that Augustus himself was not unwilling that it should be so. A chance reference in Virgil has rescued for us the interesting detail that figures of Britons were woven in the curtains of the theatre in Rome. Why Augustus never actually brought the scheme to the point of action is not quite clear. Perhaps it is enough to say that there was no urgency about Britain, whilst urgent claims on his attention did arise in Germany, Spain and the East. Tiberius was averse to unnecessary innovations and he had the precedent of Augustus to plead. Caligula, however, played with the thought of an invasion and presumably would have carried it into execution, but for his lack of sustained purpose. His

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successor, Claudius, at any rate made the conquest of Britain the main feature of his policy abroad. We have no exact account of the motives that swayed him. He may have seen a possible danger to Roman rule in Gaul in the existence of a free Britain so close to its shores. He certainly will have shared the general suspicion and dislike entertained by Romans for the Druids, with their political influence, their secret doctrine and their human sacrifices ; and Druidism could only be slain in its home in Britain. Decisive were the considerations that the Emperor needed the show of military glory, that his arms were free elsewhere, and that it concerned Roman prestige, if not Roman security, to complete a scheme of conquest that had once been attempted, but left unfinished. Seneca, in his bitter satire on the dead Claudius, asserts that he had resolved before he died to see the Britons adopting the Roman garb, the ' toga '. Pomponius Mela, who wrote at the very time when the conquest of Britain was being planned, looks forward to the new knowledge that will ensue. His own knowledge of Britain is based mainly on Julius Caesar. He has something to add about Ireland, already known for its wonderful verdure and richness of pasture, but inhabited by a wild folk, who were strangers to the ordinary decencies of human society (' *pietatis admodum expertes* '). The natives of Ireland and Scotland too, as we shall see later, come in for even severer handling from Roman observers than do the Britons themselves.

The Roman conquest followed a steady and consistent course, interrupted only by the great revolt of Boudicca under Nero. Britain ceased to enjoy the prestige of the unknown and came to be recognized as what it really was : a land with little wealth beyond human life, and likely for a long time to prove a debit rather than an asset to the Empire. Romans would appreciate the story of Caractacus, captive at Rome, marvelling at the splendours of the city and wondering what could have led its owners to covet his own poor land. The two cultures—the superior Roman and the feebler native, clashed—and, when it came to a violent outbreak, the weaker almost won the day. Boudicca raised a revolt against the Roman instruments of oppression—the recruiting sergeant, the tax-collector and the usurer. Her countrymen might be unskilled in the arts of peace, but they had the taste for liberty and could fight for it. The fact that they would follow the lead of a woman is expressly noted as an example of that high regard for women which was characteristic of the Celts. For the Romans the retention of Britain was a matter of military honour : valuable or worthless, it was

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the prize of the Roman arms and, as such, must not be let go. Paulinus, at the decisive battle, urged his men, if matters came to the worst, to die where they stood and in that way at least hold Britain. But that last necessity never arose. Britain was destined, even without the effort of a reconquest, to follow for centuries in the train of Rome.

Of the next age of Britain, in which it settled down to assimilate Roman civilization, Tacitus gives us a wonderful picture. The governorship of Britain, the conquest of the West, the North and even of a part of Scotland was the life-work of his father-in-law, Agricola. Into his personal tribute to Agricola Tacitus has woven a picture of the isle as it became Roman. Successful as a conqueror, Agricola was even more significant as a teacher of Roman ways. Britain was passing from the hands of kings into those of rival chieftains, whose quarrels made the tasks of Rome the lighter. Agricola encouraged the Britons to take the primrose path to peace, to build temples, markets and palaces, to train their sons in the liberal arts, to match their native wit against the studiousness of the Gauls, to adopt the once hated Latin tongue and even to aspire to a mastery of it in public speaking. The Roman *toga* was now seen in British streets. Porticoes, baths and richly appointed banquets followed—the ‘pleasant inducements to vice’, as Tacitus harshly brands them. The unsophisticated Britons thus absorbed slavery, mistaking it for civilization. For a moment, the conquest of Ireland must have seemed possible. Agricola, we know, had considered the probable cost and had decided that it would not be excessive. But the jealousy of Domitian—or shall we say the fortune of Rome?—saved the Romans from burning their fingers over that lovely but difficult island. The exploit of the mutinous cohort of the Usipetes, that circumnavigated Britain, adds a touch of sheer romance to the thrilling story of Agricola’s wars.

The Roman view of Britain was naturally undergoing a steady change during this period. Even if Britain would not generally attract sightseers, it would now be visited regularly by officers and civil servants on duty. ‘Ultima Thule’ is now so far from its original seclusion that it ‘talks of having its professor of Oratory’, says Juvenal. Martial reports complacently that his verses are said to be popular as far as Britain. A revolt among the Brigantes at the end of the reign of Trajan destroyed a legion, but made no permanent interruption in the life of the province. Hadrian visited Britain and planned its northern defences, based on the great wall from Newcastle to Carlisle. In due course, when he celebrated his imperial policy on coins towards the

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close of his reign, he gave Britain and the British army their due place. Under him and his immediate successors the Empire reached its zenith. There was a sense of general prosperity and happiness, and, what was even more, some dawning recognition that the relation of Rome to her loyal and peaceful provinces was something more than that of master to slave. In this prosperity and this wider view of what the Empire meant Britain had her share.

With the campaign of Septimius Severus against the peoples of Scotland, we get a fresh glimpse of native conditions—this time among barbarians who had learnt little from being neighbours to a Roman province. Severus fought against the Mæatæ north of the Wall and the Caledonians north of them, but, despite great efforts, including the building of many bridges over the marshes, he had effected little when he died at York. His sons hastened to conclude a peace and return to Rome. The chief result of the campaign was perhaps to enhance the reputation and self-confidence of the Army of Britain, which as early as 193 had been one of the main supports of Albinus and which was now bound to gain in prestige from its service under the Emperors in person. In the third century it ranked perhaps after the Illyrian army as the second best corps of the Empire ; and, as armies in the third century were to a large extent recruited locally, this has a real importance in its bearing on the development of Britain itself. What we hear about the enemies against whom Severus fought must not be applied to the Roman provincials. The Mæatæ and Caledonians were still barbarians as the Britons had been when Caesar landed. We hear of their country—mountains and rough plains, devoid of cities ; of their simple arms, shields and spears tipped with bronze apples ; of their crude mode of life, sharing women and children in common ; of their endurance, how, naked and unshod, they would maintain life on roots and rushes and would pass whole days in marshes, almost submerged, with only their heads showing above water. Barbarian simplicity is again contrasted with Roman sophistication. When the Empress taunted a native princess with the loose morals of her sex in Britain, the princess replied, that they thought it more decent to seek the love of the best men without subterfuge rather than to submit to the secret attentions of the basest.

Of the fate of Britain during the storms that shook the Empire in the third century we hear but little till near its close. When Gaul sought its separate salvation under the able Postumus, *c.* 258, Britain with Spain shared in the adventure. While it is true that this in no

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sense represented a revolt against Roman authority as such, it must have stimulated a certain feeling of provincial independence. Gallienus from Rome seemed unable to quell the foes that rose in succession against him. The western provinces instituted a claim to represent Roman tradition more faithfully than Rome herself, and even tried to restore the unity of the Empire from the West instead of from the centre. Aurelian finally restored imperial unity when he deposed Tetricus in 273, and Britain returned with the other provinces to her allegiance. But there are hints which suggest that there was some reluctance in her return. When in 286 Carausius, the base-born Menapian, admiral of the Saxon shore and secret confederate of the pirates whom he was supposed to control, revolted against Maximian to escape execution, Britain adopted his cause with alacrity and greeted him with the Virgilian quotation on the coins, 'Expectate veni', 'Come, O long desired one'—surely a very frank confession of a disloyalty to Rome of long standing. Carausius himself was no Briton, and as he, or at least his successor Allectus, relied mainly on the services of Saxon pirates, the Britons may have had no very large share in his rule. Carausius too, like Postumus, claimed to stand for the true Roman tradition, and at the first opportunity made his peace with the Empire. But even after the peace Britain remained for the time a separate section with an Empire of its own. For the first time in history the significance of the insular position of the island was made manifest. Defended, not as before Julius Caesar by inaccessibility and ignorance, but by her fleet in the narrow seas, Britain could face the continent of Europe as an independent power. The short episode was indeed soon over. Constantius Chlorus eluded the defending fleets in a fog, recovered Britain and reunited it to Rome. The official statement was accepted without demur. Britain, torn from her allegiance by a villainous arch-pirate, was now restored from heathen darkness to the true light of the Empire by the valour of Constantius. The loving-kindness of the Emperor forgave the erring province and raised her again to her feet. There was no immediate sequel then to the adventure of Carausius. But, in the gentle policy pursued by Constantius, in his care for the defences of the province, in his residence in the island, we may see signs that the lesson of the revolt was not entirely misread at headquarters; it was realized that, if Britain were to remain loyal, she must receive more attention than she had received before. Certainly the early fourth century was a time of prosperity and prestige for Britain. For the first time the island had an imperial mint at London—the continuation

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of one of the mints opened by Carausius. Constantine the Great was, according to one tradition, the son of a British mother, Helena ; he was raised to the throne by the British army. Now, and not earlier, we hear of Britain serving as a granary for Gaul.

It was a prosperity, however, that was not destined to endure. The darkness fell with a suddenness that must have seemed catastrophic to those on whom it fell. In the sixties of the fourth century an invasion of Picts burst the barrier of the Wall and carried destruction over the whole island. When Theodosius the Elder at last drove off the invaders, damage had been inflicted that was never to be made good. Division in the Empire completed the havoc wrought by invasion. Magnus Maximus—the hero of Kipling’s wonderful British stories—drew off the British army to win Gaul and overthrow Gratian. Late in the century Stilicho gave the island some respite from its invaders—Scots from Ireland as well as Picts from the North—and restored the defences. But the barbarians now began to sweep into the Empire from all sides, and, when Rome herself fell a victim to Alaric, there was little enough interest to be aroused in Italy for the sufferings of Britain.

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ill of the general reputation of Britons. He is struck by the curious fact that a Briton is called ' Bonus ' (good), and writes a string of epigrams, calling attention to this strange union of two incompatibles.

Of the coming of Christianity to Britain nothing certain is recorded. One tradition actually made St. Paul himself reach the extremity of the West, or, at least, send a missionary, Aristobulus, to preach the gospel in the island. In the fourth century we hear of British bishops attending Church Councils at Serdica and Ariminum ; at the latter, three British bishops were the only ones, who, through poverty, had to accept state support. In the early fifth century Britain gave birth to its own heresy, that of Pelagius. It was to counter his errors that St. Germanus near A.D. 430 visited Verulam—one of the last glimpses we catch of Roman Britain before the darkness settled over it.

However scanty the materials we have here to handle, there are some pictures that have formed clearly before us, as we have advanced. We have seen Britain at first an unknown world of wonder waiting to be discovered. We have seen it half revealed by Julius Caesar, then conquered by Claudius and gradually conformed to the life of the Empire. Extravagant expectations are disappointed. The unknown proves less magnificent than had been hoped, and Britain settles down to be a province of the second rank. For a moment, in 286, the significance of insular position and sea power is revealed, only to be again forgotten. A short period of recovery and prosperity is followed by a rapid decline and a long night. It is a blow to any national pride that we may be inclined to feel in Britain that its final loss meant so little to the Empire—that any sorrow over parting was mainly on the British side. But indeed the whole story of the Roman period in Britain will teach us, so far as we identify ourselves with our land, a salutary lesson of humility, of not thinking more highly of ourselves than we ought to think !

In depicting Britannia in human guise the Romans were only obeying a deep instinct of their nature. Personification to them was vital and significant—no frigid convention of literature and art, as it is so often today. To the Roman's religious sense there were divine powers behind all the multitudinous phases of life, to whom it was appropriate to offer prayer and sacrifice when their province was in question. Peace, Concord, Felicity were no mere abstractions—they were goddesses, worshipped in temples and enjoying public and private worship. Following on this line of thought, the Roman found it

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natural to conceive of every land as having its own divine protector—whether called by its own name or described as its ‘Genius’ or spirit. Here the process of personification was often left only half complete. Roma and the Genius of the Roman People were, no doubt, recognized deities : but the province and the city would have, at the best, a local cult and, outside their own area, would be only half realized as living persons. When the Romans began to represent their provinces on their coins by human figures, in appropriate garb and with appropriate emblems, they were introducing powers that in their own range were deities to a wider sphere of less intense vitality in the art of the Empire.

That Roman interest in the provinces, from which our coin-types spring, begins in the first century of the Empire : it only reached its full development in the second and third. The province might be conceived in several distinct ways—as a ‘*provincia capta*’, an enemy subdued by the might of Roman arms ; as a ‘*provincia restituta*’, a province restored to prosperity by the wisdom of Roman rule ; or as a ‘*provincia fidelis*’ or ‘*pacata*’, a province loyal and at peace within the Roman community of nations. Similarly, as regards representation, the province may be depicted, either by the figure (or figures) of native men and women, or by a superhuman figure, invested with native characteristics (‘ideal native’) or, much less commonly, by a goddess of the conventional Minerva (city-goddess) pattern. The sestertius and Asses of Hadrian, the sestertii and As of Antoninus Pius and the medallion of Commodus (PLATE, nos. 1–5, 7) all show the ‘loyal province’ idea and the ‘ideal native’ representation. On the coins of Hadrian (PLATE, nos. 1, 4, 7) Britain is a female figure, wearing a long garment with fringe, seated in an attitude of rest and security (head propped on right arm), with spear across left arm and huge round shield with central boss at her side : the stones in courses, on which she sets her foot, may, without undue fancifulness, be held to suggest the Great Wall. Antoninus Pius, on his sestertii (PLATE, nos. 2, 3) appears to show a male figure, wearing breeches—in place of female—perhaps the ‘Genius Britanniae’. He is now seated on the pile of stones, and holds a standard in his right hand, while his left rests on a round shield set on a helmet, or, in a rare version, he sits on a globe beyond the waves on which his shield is uneasily balanced—the Briton ‘sundered once from all the human race’. The type of the As of Antoninus (PLATE, no. 6) is a close imitation of the Hadrianic, except that Britannia is seated on the stones and seems to be sinking her head in dejection : the Britain that had revolted against Antoninus and been brought to subjection is here



BRITANNIA (and allied types)
Scale $\frac{1}{4}$

BRITANNIA

marked by delicate touches as a 'provincia capta'. The medallion of Commodus (PLATE, no. 5) is a magnificent rendering of the 'Genius' type of Antoninus Pius. The As of Septimius Severus (PLATE, no. 8) shows a Victory, marked as British, by two little figures of captive natives, symbolizing the island. Carausius has no certain representation of Britannia on his coins, but the uncouth little figure of a woman, holding the caduceus of Felicitas, who welcomes Carausius, on the silver coin with the legend 'Expectate veni' (PLATE, no. 9) may represent a 'Britannia Felix'. The restoration of Britain, after the overthrow of the tyranny by Constantius Chlorus, is the theme of some magnificent medallions, only recently restored to light in the Arras Hoard. On one (PLATE, no. 10) the victorious Constantius rides up to the gates of a city, in front of which a kneeling woman (Londinium) appeals to his mercy: on the water below him rides a war-ship with its crew. The terms in which Londinium welcomes the Emperor are suggested by the legend, 'Hail, O thou who bringest back to us the eternal light of Rome' (*Redditor lucis aeternae*). The other (PLATE, no. 11) shows the victorious Constantius expressing in action the 'Pietas Augg.' or 'loving-kindness (pity) of the Emperor' by extending his hand to raise Britannia to her feet: she is a woman, wearing a robe to her ankles, and she holds a spear and oblong shield, not the great round shield of earlier types. The last personification of Britain that we can quote from Roman times is a literary, not an artistic type, freely embroidered by the author's fancy. Britannia, who appears to swell the praises of Stilicho, wears on her head the spoils of a Caledonian monster, her cheeks are stained with woad, and her long robe, blue with the blue of ocean, sweeps her feet:

'inde Caledonio velata Britannia monstro,
ferro picta genas, cuius vestigia verrit
caerulus, Oceanique aestum mentitur, amictus'.

—Claudian, *De Laudibus Stilichonis*, II, vv. 247ff.

Up to the last there is uncertainty both as to the garb and to the attributes of Britannia—an uncertainty that suggests that to the Romans as to us she was an object of the imagination, rather than a fully realized goddess.

The Britannia type in modern times show a similar uncertainty. The gracious woman of the halfpenny of Charles II (PLATE, no. 12), said to be a portrait of Frances Stewart, Duchess of Richmond, is a Britannia who combines the emblems of war, spear and shield, with the branch of Peace; the idea is that of a 'Minerva Pacifera', but the helmet of the goddess is missing. The figure reappears on the farthing

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of Anne (PLATE, no. 13) and the halfpenny of William III (PLATE, no. 15)—this time in a slightly different pose. The Pax of another pattern farthing of Anne is essentially the same figure. On the penny of George III (1799), the spear gave place to the trident: the emblem of Neptune was now for the first time claimed for the island kingdom. Then, early in the reign of George IV (1825), were evolved the Britannia types familiar to us. The goddess retained the shield and the trident, but was now set towards right instead of left, and received a helmet on her head. She is now, as Professor Ashmole has observed, a very close adaptation of the Roman type of Roma as a city-goddess like Minerva, with spear and shield: she is quite unlike any Roman conception of Britannia and is only distinguished from a typical Roma by the trident in place of spear and the cross on the shield. A lighthouse was introduced on the penny of Victoria in 1860, and continued on it till 1894. This Britannia is gracefully conceived and designed in the classical tradition: the worst one can say of her is that that tradition is neither native to us nor vital today. Ought we rather to seek our own forms of representation in some such way as the Irish Free State with its thorough-bred horse, salmon, pig and hen? But this is a question that would lead us too far beyond the limits of this paper.

LIST OF 'BRITANNIA' AND ALLIED TYPES

(Plate, facing p. 392)

1. Sestertius of Hadrian, struck *c.* A.D. 135.
2. Sestertius of Antoninus Pius, struck *c.* 142.
3. Sestertius of Antoninus Pius, struck *c.* 143.
4. As of Hadrian, struck *c.* 119.
5. Bronze Medallion of Commodus, struck 184-185.
6. As of Hadrian, struck *c.* 135.
7. As of Antoninus Pius, struck 154-155.
8. As of Septimius Severus, struck 211.
9. Silver of Carausius, struck *c.* 188.
10. } Gold medallions of Constantius Chlorus, struck *c.* 296.
11. }
12. Halfpenny of Charles II, 1670.
13. Farthing of Anne, 1714.
14. Farthing (pattern) of Anne, 1713.
15. Halfpenny of William III, 1699.
16. Penny of George III, 1807.
17. Penny of George IV, 1825.
18. Penny of Victoria, 1860.

Forts and Farms on Margam Mountain

Glamorgan

by CYRIL and AILEEN FOX

THE progress of archaeology in Britain, as elsewhere, depends on excavation. This is a commonplace ; but a more leisurely approach to that final arbitrament than is usually adopted would, we think, be advantageous. Until an area is studied, its visible antiquities planned, the evidence afforded by their geographical and topographical relationships weighed, the natural environmental conditions—forest and open country—assessed, and resultant possibilities discussed, the selection of particular sites for excavation in that area is premature. The following account of a field survey of a limited area in Glamorgan is a practical expression of this point of view.

Margam Mountain is a convenient title for an upland region the highest part of which is called Mynydd Margam, measuring 8 miles along its main axis (SE to NW) and 4 miles across. It is on the southern fringe of the Glamorgan coalfield, with steep slopes overlooking a narrow coastal flat to the southeast of the industrial town of Port Talbot (FIG. 1). On the northeast it is defined by the valley of the Llynfi, a tributary of the river Ogmore (Ogwr) and on the northwest by a ravine known as Cwm Dyffryn. On the north, the steep scarp of Mynydd Bach fronts the saddle which separates Cwm Dyffryn from the Llynfi valley. This saddle (800 ft.) is the only link between Margam Mountain and the Glamorgan plateau.

On all sides the outline of the massif is indented by ravines and *cwm*s, each with its small stream rising in boggy ground near the crest. Thus, though the main ridge, which rises gradually from 800 feet in the southeast to over 1100 feet in the northwest, is unbroken, there are many subsidiary hill-tops and spurs on either flank. The area over 1000 feet is a featureless and monotonous plateau showing the limited flora normal to the poor and thin soils of the Pennant Series. At the lower levels the landscape is more varied, the soil less infertile.

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To prehistoric man the poverty of the soil of the plateau would be offset by its open character, and several large cairns and barrows sited on crest-lines in the Bronze Age manner suggest some occupation in that period. One of these, Twmpath Diwlith, was opened by Dr R. E. M. Wheeler in 1921,¹ and a simple burial in a cist disclosed. The lower slopes, on the southwest side, show a contour fort of La Tène character encircling a knoll at the 300 feet level; this illustrates the Celtic penetration of the coastal plain of Glamorgan prior to the Roman conquest, of which we have both historical and archaeological evidence. No fortress of this type, however, is to be seen on the mountain itself, and its effective occupation seems to have been reserved for a later phase of culture, which is the subject of our paper. Most of the remains of this occupation lie in the centre—an area measuring 3 by 2 miles shown on the large scale map (FIG. 2),² to which our survey will be confined. On this map are shown three forts, half-a-dozen domestic sites, and the trackways which linked them; together with barrows probably for the most part prehistoric, a small ring-work,³ and a keep-and-bailey castle. None of the forts has been previously described, and the plans on the O.S. maps are inadequate. The majority of the domestic sites are unrecorded; they seem to represent types new to archaeological science.

The extent of habitable open country or parkland in relation to the enviroing forest and its accessibility from other similar areas, were prime economic factors in early times, determining the distribution of human settlement. In our area the valley floors were certainly dense jungle, and the sides of the *cwm*s thickly wooded. The ridges and crests, on the other hand, were open; along the spurs grassland changed to parkland, parkland to forest, as, in the descent to lower levels, soils improved and the sea winds' force was lessened. These considerations determine the extent of forest which we have shown on the map.⁴ On the plateau there were peat bogs, and the country was exposed and bleak especially in winter; it is on the whole probable that the upper slopes on either side were the zones most suitable for habitation and for a primitive agriculture. Most of the sites to be

¹ *Bulletin*, Board of Celtic Studies, I, p. 66.

² Parts of 6 inch sheets 25 SE, 26 SW, 33 NE, 34 NW, Glamorgan.

³ This nameless work, on Moel Ton Mawr, has been ploughed down, and shows no features of interest.

⁴ Much of the steep slopes and lower levels of the mountain are woodland today.

FORTS AND FARMS ON MARGAM MOUNTAIN

described are on north or northeast slopes ; shelter from the prevailing rain-laden southwest winds was probably the determining factor.

COMMUNICATIONS

These centre on Rhed Blaen y Cwm—the 'Ford at the Head of the Combe', down which the river Kenfig flows. To east and west

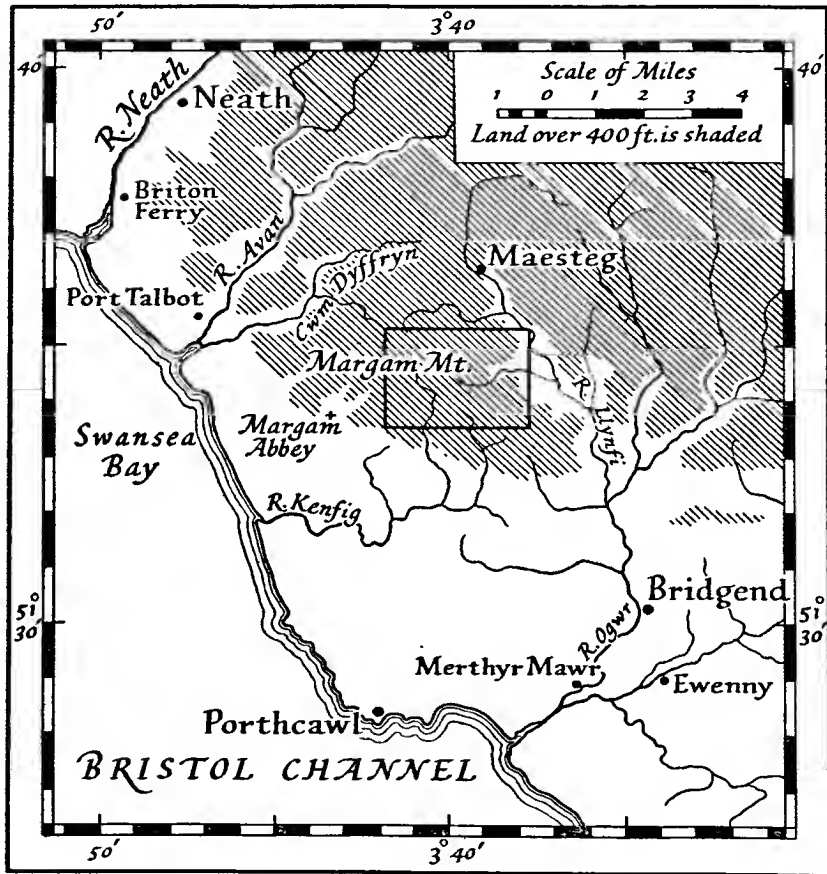


FIG. 1. MARGAM MOUNTAIN : THE GEOGRAPHICAL SETTING
Land above 400 feet is shaded, and the area shown in fig. 2 defined by a rectangle

from this ford trackways follow the main axis of the mountain ; to the south an ancient way descends by Moel Ton Mawr to the sea plain, where occupation of sandhills and limestone downlands had been heavy since neolithic times. To the northwest the chief route to the high

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plateau of Glamorgan crosses Mynydd Margam at 1120 feet. Tracks to the northeast making for the Llynfi valley⁴ may be later than those hitherto described, but were certainly in use early in the historic period. In addition, byways link many of the constructions now to be considered with the main routes. Much of this system is in intermittent use today; in part it has been disused for centuries, and is represented by narrow sinuous depressions partly filled with peaty growth. It should be added that very heavy traffic resulting from the early (medieval and later) exploitation of coal in the Llynfi valley has in many places created bundles of deep hollow-ways on the slopes of the mountain (marked as 'Intrenchments' on the 6 inch O.S. maps).

THE FORTS

The large fortification of Y BWLWARCAU (The Bulwarks) will first be considered. It is situated (FIG. 2) on a broad spur of Mynydd Margam which trends northeast. On the northwest side of the spur the ground falls steeply to a ravine, Cwm Cerdin. To the southeast the spur is less well defined and there is a considerable breadth of level ground; to the southwest it rises fairly steeply to the main ridge of the mountain. A trackway to the Llynfi valley passes by the fort.

Y Bwlwarcau has analogies to the 'hill-slope' type of camp,⁵ with its difference of 100 feet vertical between the outermost defences at the upper and lower sides. It is between 850 and 950 feet above sea level.

Four concentric zones of earthwork can be distinguished in its structure. The core of the fortress is a gently-sloping roughly rectangular area, about 60 by 50 yards, surrounded by a bank and (outer) ditch, which is largest on the side which faces uphill. There is a small counterscarp bank to the ditch. The overall measurement is about 35 ft.; the rampart 3 ft. high, the counterscarp bank 1.5 ft. Separated from these defences on the southwest and southeast sides by a berm some 10 yards wide is the second zone of defence—bank, ditch, and counterscarp bank; this, on the lower (northeast) side approaches and finally merges with, the inner defences. Here is the original entrance,

⁴ They form part of an ancient system of ways along the foothills.

⁵ This type is common in South Wales, and was figured and described by Col. Ll. Morgan in 1920. The upper defences—the strongest—are usually on the edge of a ridge or plateau. The entrance is on the lower side. The type appears to illustrate a phase of the movement of population from the hill crests to the valley floors. See *Arch. Camb.*, 1920, Ser. 6, xx, 220–222.

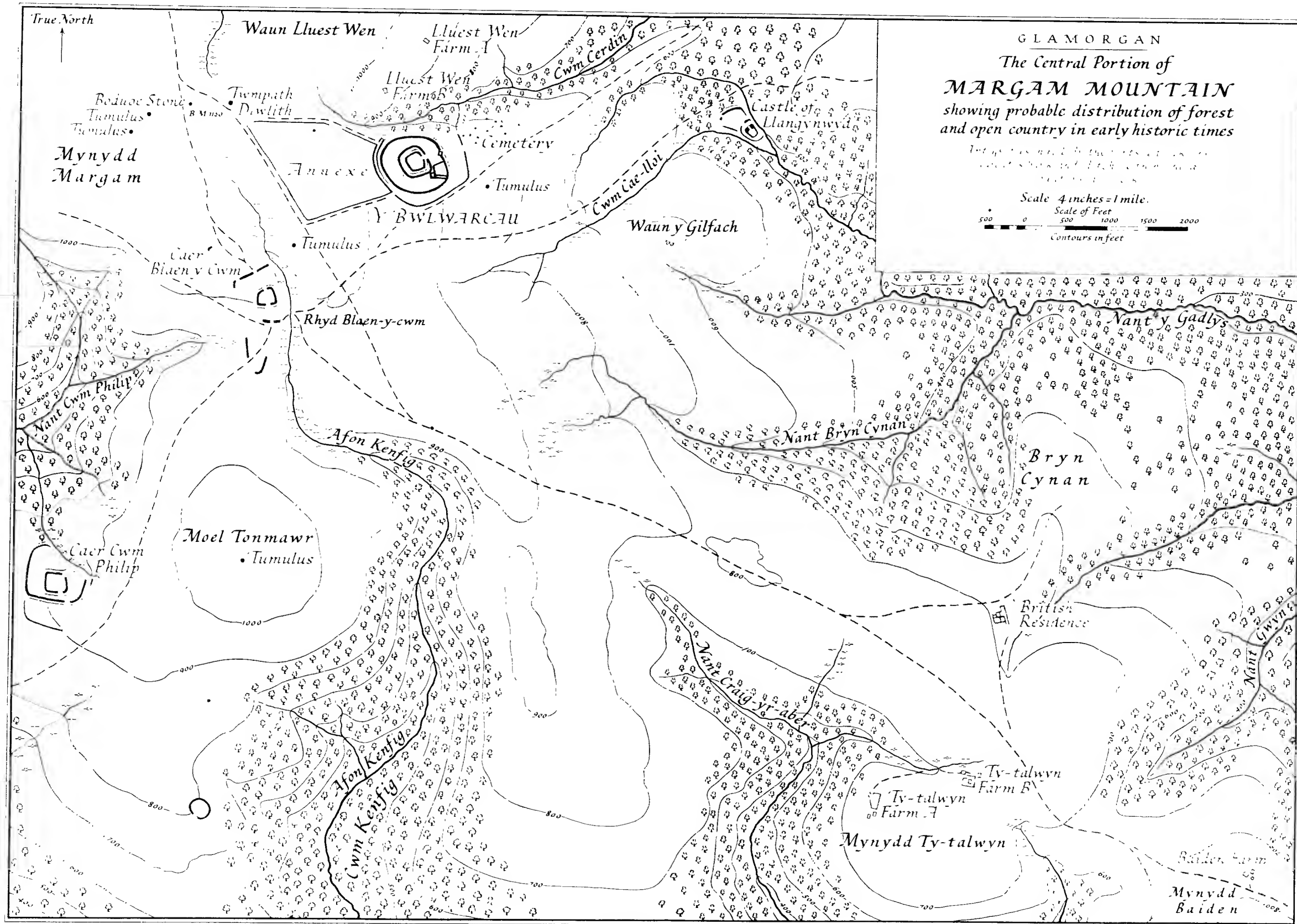


FIG. 2. MARGAM MOUNTAIN, GLAMORGAN

FORTS AND FARMS ON MARGAM MOUNTAIN

a simple gap in the earthwork. A trackway worn into a shallow hollow is clearly visible passing from it down the spur.

Around the main fortress are earthworks of slighter character, normally consisting of a bank and outer ditch. The nearest—defining the Middle Enclosure—encircles it at a fairly regular distance (average 60 yards). The original entrance is in line with that of the fortress; one of its flanks is slightly recurved. On either side of the entrance this work is larger than elsewhere, and has a counterscarp bank.

The Outer Enclosure—a very irregular work—surrounds the middle enclosure on three sides at varying distances; it is 70 yards away on the northeast (lower) side while on the southwest (upper) side it is in one place so close as almost to form with it a single constructional unit. The banks of this enclosure fade out on the scarp of Cwm Cerdin; the ravine thus forms the boundary on the north side. On the west the Outer Enclosure shows exceptional features, developing a double bank with outer and middle ditches (overall breadth, 44 ft.): these may be said to form a definite military obstacle. The outer bank has here an opening, splayed outwards and apparently original, giving access to a convenient route up to Mynydd Margam along the flank of the Cwm; the existence of this traffic-way provides a reason for the adjacent defences. Behind this entrance, however, the second bank of the Outer Enclosure was continuous. Another gap on this side, shown on the Map, is probably secondary. On the northeast side, adjacent to the 'cemetery' (a group of small mounds possibly contemporary), the bank of the Outer Enclosure is ploughed down. No entrance can be detected here, but there must have been one in line with the others.

Such is the remarkable fortification of Y Bwlwarcau, elaborate and extensive, but planned on simple and consistent lines. The situation of its main entrance suggests that the interests of its occupiers lay downhill rather than uphill. The concentric enclosures which are a striking feature of its lay-out can only have been needed by a community whose chief business was stock raising; they were doubtless palisaded, and provided protection against wolves and other predatory animals.

An addition to the original structure of Y Bwlwarcau needs brief reference. This is a very large polygonal Annex (two sides of which are parish boundaries), defined by a turf bank and broad, flat outer ditch, based on the Outer Enclosure and extending uphill for over half-a-mile to the plateau (about 1100 ft. above sea level). The north-west-southeast ridgeway which passes by it was straightened and has

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ever since followed the ditch of the Annex, its older sinuous course being still traceable. The age of the Annex is uncertain. The same may be said of a large cattle-pond (diameter 61 ft.) cut in and across the double banks of the Outer Enclosure near Cwm Cerdin, and fed by drainage from their ditches.

The two other forts, which may conveniently be called CAER BLAEN Y CWM and CAER CWM PHILIP, lie on the south side of the mountain, at 1000 ft. and 900 ft.⁶ respectively. These forts, as FIG. 2 shows, are remarkably similar to Y Bwlwarcau. Each consists of an inner enclosure, roughly rectangular, with outer enclosure of slighter character; one side of the latter rests on a streamlet or ravine. In

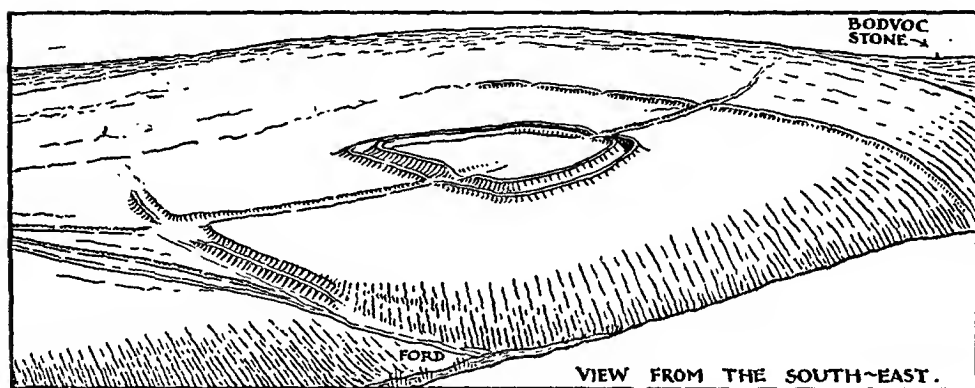


FIG 3. CAER BLAEN Y CWM. By Dr R. E. M. Wheeler, F.S.A.

each the defences of the inner enclosure consist of a bank, ditch, and counterscarp bank, and are strongest on the side facing uphill. The entrances are simple gaps. It is probable that one of these forts, Caer Blaen y Cwm, owes its existence to its position at the traffic centre of the mountain; so exposed a site would hardly be chosen for economic reasons. We owe the admirable bird's-eye view of this fort (FIG. 3) to the courtesy of Dr R. E. M. Wheeler.

The resemblances justify the conclusion that all three forts are approximately contemporary. To what period are we to assign them? They resemble in some respects, as we have seen, 'hill-slope' camps, which are late in the development of hill-fort design in this country.

⁶ Caer Cwm Philip is nameless on the o.s. map. Caer Blaen y Cwm is called 'Roman Camp'—a title imposed on it in the late 19th century.



FIG. 4. THE BODVOC STONE, MARGAM MOUNTAIN, GLAMORGAN. 1120 FEET ABOVE O.D.
Ph. National Museum of Wales

FORTS AND FARMS ON MARGAM MOUNTAIN

Again, they seem to us to show degeneration in the technique of defensive earthwork. The crude rectangularity, then, of the inner enclosures can reasonably be ascribed to Roman influence and the earthworks placed provisionally in the sub-Roman period.⁷

THE BODVOC STONE

Attention may now be directed to a remarkable monument, the BODVOC STONE (FIG. 4) referred to by Camden.⁸ It is exactly placed on the watershed of Mynydd Margam (1120 ft.) where traffic crossed it, above the source of the river Kenfig. It is in the centre of a low barrow, the rim only of which remains; and is, we are convinced, in its original position. The inscription is in well-cut Roman capitals of normal type—except the letters H and G, two of the final I's which are horizontal, and all the A's which are upsidedown:—

BODVOC = HIC IVCIT
FILIVS CVTOTIGIRNI
PRONEPVS ETERNVLI
VEDOMVV =

(The stone of) Bodvoc : here lies
the son of Catotigirnus, great-grandson
of Eternalis Vedomavus.

Here we have record of three generations, surely of a royal or princely Celtic dynasty with some Roman traditions, illustrated by the name Eternalis. The character of the lettering suggests that the stone was set up about A.D. 550. It seems probable then that the forts on Margam Mountain, representing a resumption of the pre-Roman (Celtic) mode of life in defended settlements, are to be related to the existence of this dynasty, whose founder (Eternalis) would appear to have been born at the very end of the Roman occupation.⁹

⁷ Dr Wheeler tells us he came to this conclusion in 1921 with respect to *Caer Blaen y Cwm*.

⁸ 'A sepulchral Monument, with an Inscription, which whoever happens to read, the ignorant common people of the neighbourhood affirm that he shall die soon after. Let the Reader therefore take heed what he does!' Camden, ed. Gibson, II, 738.

⁹ See Sir John Rhys in *Y Cymmrodor*, 1905, XVIII, 79. This author gave reasons for regarding Vedomavi [= Vedomagui] as a place-name, the termination *-magus* or *-magos* (field) being as is well known, of common occurrence in Celtic Europe. But we are assured that the philological difficulties which beset this interpretation are serious, and the temptation to equate Y Bwlwarcau with Vedomagus must be resisted. Undoubted double names occur in contemporary inscriptions, e.g. the Turpillius stone at Crickhowell, Brecon, *loc. cit.*, p. 95.

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THE FARMS

Y BWLWARCAU. On FIG. 2 there are certain intrusive constructions (shown in black for effective contrast) in the Middle Enclosure of

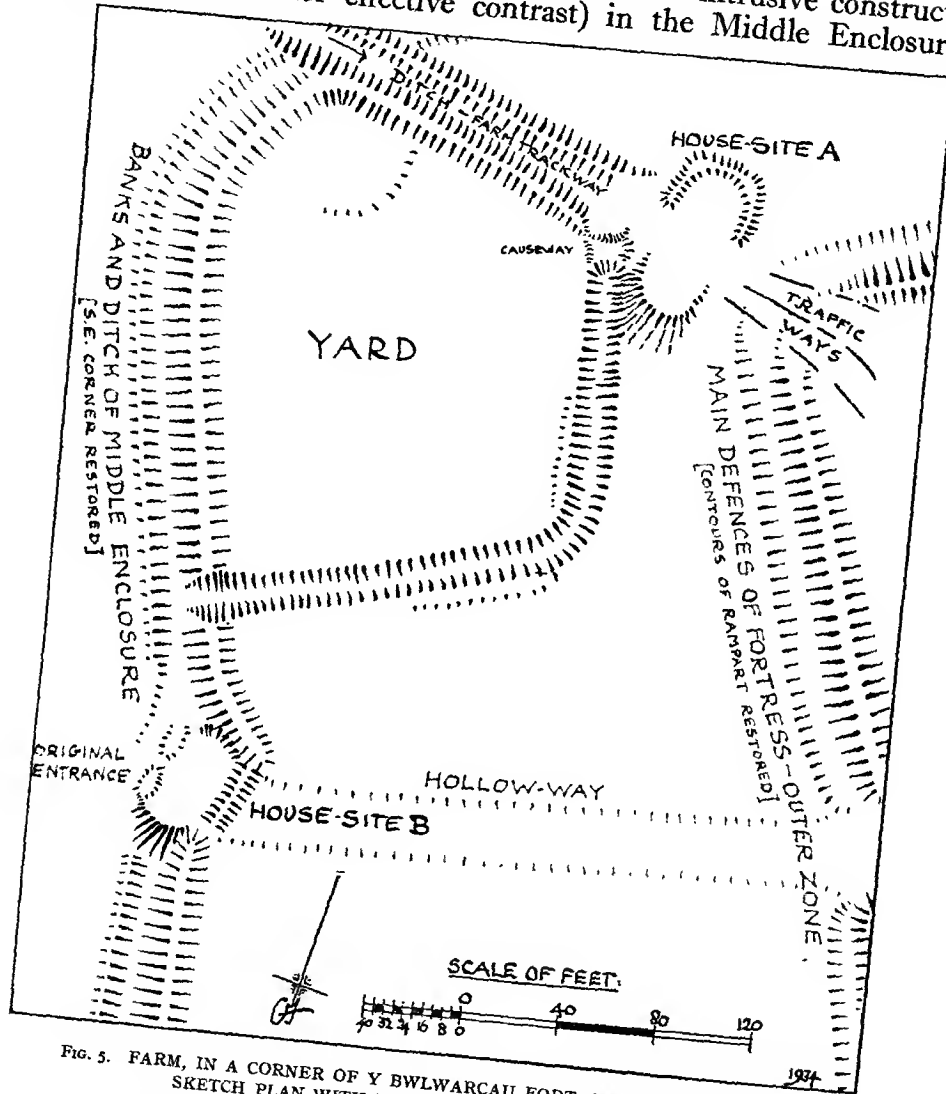


FIG. 5. FARM, IN A CORNER OF Y BWLWARCAU FORT, 900 FEET ABOVE O.D.
SKETCH PLAN WITH LATER FIELD-BANKS OMITTED
In this and all succeeding plans, the ground slopes downwards from the top

Y Bwlwarcau; their character is more clearly brought out in FIG. 5. They consist of two 'platforms' and a quadrangular yard. The most

FORTS AND FARMS ON MARGAM MOUNTAIN

southerly—House-site A on plan—is roughly levelled up at the north end and shows an artificial scarp ; the south end is defined by a broad, low semicircular bank. The area enclosed measures 59×24 ft. The second ' platform ' is similar, but smaller, 41×22 ft. ; it bestrides the gap in the Middle Enclosure which was the main entrance to Y Bwlwarcau. The fort ditch has been filled in, and the slightly recurved rampart hollowed-out a little to give protection on the southwest—the windward side. The yard is based on the fort rampart and is defined by ditches on two sides, and by a double bank with intervening ditch on the third ; it measures some 40 yards square. Communication between the two platforms was apparently by a newly-cut gap in the Middle Enclosure bank and the north ditch of the yard ; access to the yard from the southern platform was by a low causeway. The south ditch of the yard was also used as a traffic-way.

The blocking of the main entrance and the partial levelling of the defences of the fort indicate a lowering of the social standard of the occupants of Y Bwlwarcau. Indeed, a desertion of the fortress proper, followed by a casual intrusion, seems the most likely interpretation of these secondary works. Before, however, we endeavour to interpret them, we shall do well to examine several other similar or related constructions on the mountain.

BAIDEN. Towards the east end of the main ridge, about $2\frac{1}{2}$ miles distant from Y Bwlwarcau, there is a small complex of earthworks (marked ' Camp ' on 6 inch O.S., 34 NW) on the north slope of the hill called Mynydd Baiden, 750 feet above sea-level and close to the east-west ridgeway. As FIG. 6 shows, it consists of a pair of rectangular structures, a pond, and approach trackways.

The site lowest down the slope (House 1) first attracts attention because it is similar to those at Y Bwlwarcau. It stands southwest-northeast, and to obtain a level area the hillside has been dug out and the material thrown downhill to form a flat rectangular platform, as is shown on the section C-D. This is more level, cleaner cut with sharper angles, than those at the fortress, and has on it—in the form of low banks—the foundations of the actual building which it carried. This building had two doorways, central and opposite, and measured about 50 by 20 feet.¹⁰ Flanking the foundation wall on either side are banks, gapped for the entrances to the building. These end, as FIG. 6 shows, where the slope of the artificial platform and where the scarp of the quarried hillside begin.

¹⁰ For exact measurements of this and other sites, see Appendix.

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The second site (House II) lies above and at right angles to the former, southeast and northwest along the contour of the hill; there is thus no artificial platform. It is slightly smaller and the same low

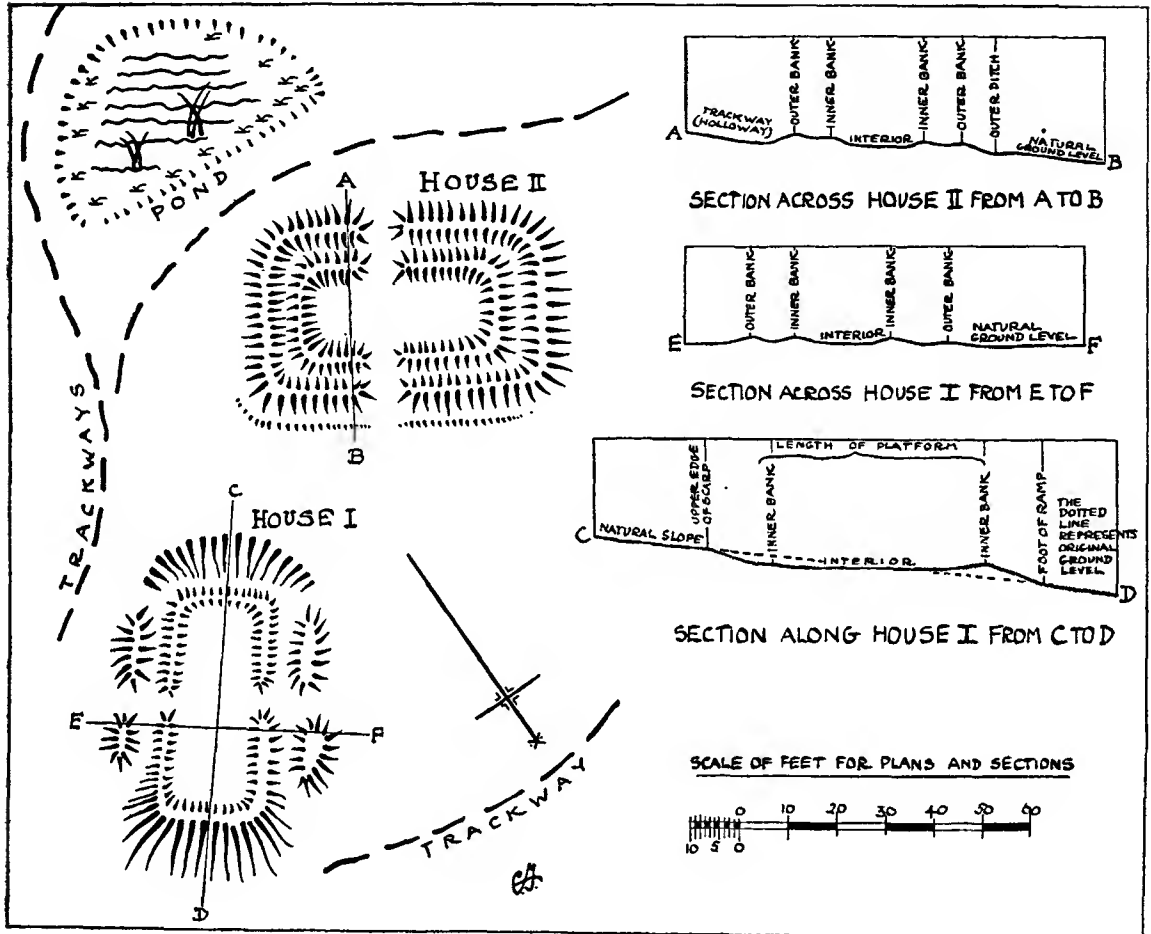


FIG. 6. BAIDEN FARM, 750 FEET. SKETCH PLAN, WITH EXACT PROFILES
This and all succeeding plans are on the same scale, double that in the preceding figure

earthen bank and the same central and opposite doorways are present. But the most striking feature of the plan is a second bank close to and parallel with the house-wall, and with similar openings. The function which necessitated the construction of an *incomplete* external bank in

FORTS AND FARMS ON MARGAM MOUNTAIN

House I seems to have necessitated the construction of a *complete* bank in House II! This site shows that a pair of buildings, as at Y Bwlwarcau, is a normal unit for these structures.

TY TALWYN A. A short mile to the west, on an easy north slope near the crest of Mynydd Ty Talwyn, about 750 feet above sea level, is a site which provides even closer parallels to Y Bwlwarcau than does that at Baiden (see FIG. 7). There are, as usual, the remains of two buildings. House I, the larger, lies south and north. Its platform is artificial, cut out of the hillside on the south and banked up on the north, like House II at Baiden. It has opposite entrances, with an outer flanking bank; this goes right round the top of the house-site like a protective hood: the hood resembles that at House site I at Y Bwlwarcau, except that it is more angular. House II, ten yards away, is smaller, and poorly defined. Its outer banks, if it had any, were too faint for recognition.

We noted that a feature of the Y Bwlwarcau group is the yard abutting on one of the house sites. Ty Talwyn A has a similar structure, abutting on House I. It is banked, with outer ditch, but of very slight relief (12 feet overall). It will be recalled that the ditches of the Y Bwlwarcau yard were used as approach ways. The same usage is apparent at Ty Talwyn. A trackway leads diagonally from the bottom of the little valley to the northwest angle of the yard, and thence proceeds uphill along its west ditch to the steading. The valley floor it may be added, is now boggy, and would then have given an ample water supply. Thus cultural unity between the builders of these isolated structures and those in the wrecked fortress of Y Bwlwarcau is established.

TY TALWYN B. The last of our four sites is on the north side of the Mynydd, on gently sloping ground nearer to the head of the little glen than that just described. It has a yard within which one of the usual two structures is situated. This is large, well defined, with opposite doorways, and has no outer banks. The yard, as FIG. 8 shows, is roughly rectangular, with four entrances. The enclosing banks are low, shapeless and massive, evidently representing earthen walls with a facing of stones, a type still of common occurrence in this district. On the south side these banks present a steep scarp; this is because the hillside has been cut away to make the interior more level. The yard thus carries out the same idea as the platforms, but on a larger scale.

The second house-site is a small and poorly defined platform

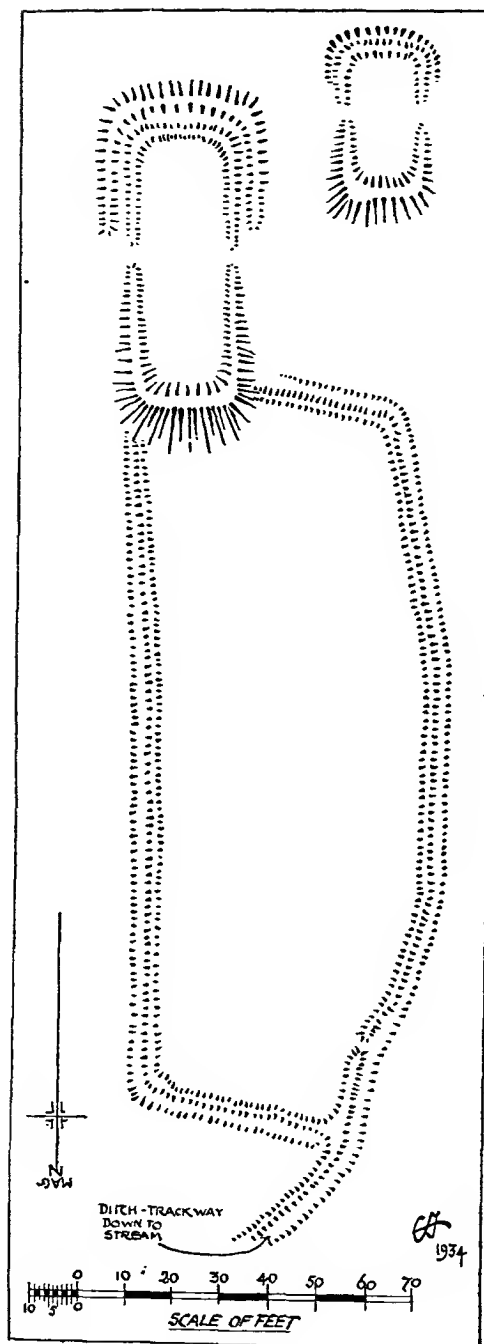


Fig 7. TY TALWYN FARM A. 750 FEET ABOVE O.D.
SKETCH PLAN

FORTS AND FARMS ON MARGAM MOUNTAIN

outside the northeast corner of the yard. A hollow-way, as at Ty Talwyn A, leads downhill to the rivulet ; a water-hole has been at some later date dug in it.

THE CHARACTER OF THE FARMS

We have described four groups of earthworks in each of which the site of a pair of buildings is apparent. We think that this duality provides the clue to their meaning, suggesting separate shelters for man and for beast ; we have in fact four primitive farmsteads. The enclosure-yard, present at three out of the four, conforms to this interpretation, while the narrow hollow-ways suggest stock-raising as the chief activity of the farmers. The scattered distribution of the farms on the mountain is also consistent with pastoral economy, each farmer having a sufficient area of grazing.¹¹

On this assumption an analysis of the lay-outs provides interesting data. Of the eight buildings all but one are sited south and north or southeast and northwest down the hill-slope, and placed on artificial platforms. Of each pair, one building is larger, usually much larger, than the other (see Appendix). Where there is a yard the larger building is either close up against it, or within it. Where the two buildings are in close proximity on the hillside (Baiden and Ty Talwyn A) the smaller is above the larger. We can thus tentatively identify the larger as the barn or byre, the smaller as the dwelling of the owner.

Turning to constructional problems : the low banks visible today are likely to represent plinths or sills of turf in some cases, ruined walls of earth with stone revetment in others. On the turf sills, posts and wall-plates could be erected and the interspaces interwoven with wattle ; we may surmise, for all, roofs thatched with heather or bracken.

At Y Bwlwarcau, where foundation banks are not present, the structures on the platforms were probably more primitive. There was no sill or plinth—the posts doubtless were bedded in the ground ; but the outward appearance was probably very similar. There are two farm sites near Y Bwlwarcau, on the opposite slope of Cwm Cerdin

¹¹ The possibility that the sites are sheepfolds, both yards and buildings serving solely pastoral purposes, has been suggested to us by Mr Iorwerth Peate. Mr Peate has discovered an enclosure in Montgomeryshire larger than, but closely resembling, the yard of Ty Talwyn B. The hillside is known as *Banc y Gorlan*, the sheep-fold slope ; and there is a sheep-washing pool in use today. But nothing resembling the Margam platforms or double-banked structures has been found ; and we think that for the purpose of a Field Survey the term ' Farms ' for our structures should stand.

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(see FIG. 2), which should here be mentioned. The artificial ramp of each platform is well marked, the hillside deeply cut into as at Baiden and Ty

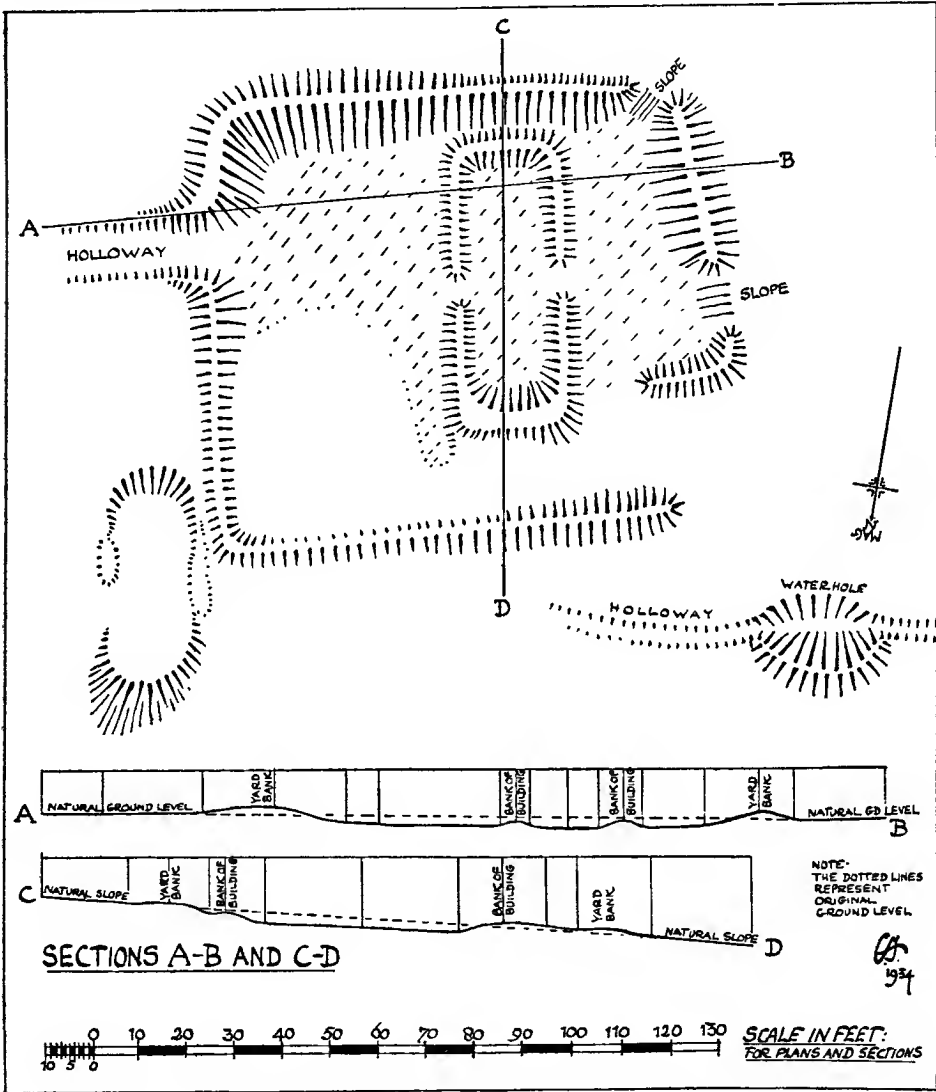


FIG. 8. TY TALWYN FARM B. 720 FEET ABOVE O.D. SKETCH PLAN WITH EXACT PROFILES
The stippling within the enclosure shows the area excavated

Talwyn A; but the foundation banks are absent as at Y Bwlwarcau.
The outer banks in one form or another in the larger buildings at

FORTS AND FARMS ON MARGAM MOUNTAIN

Baiden and Ty Talwyn A present a problem which we have hitherto disregarded. They cannot have been supports for roof timbers extending outside and below the main walls, because such banks would be needed at the lower ends of the platforms where they do not occur, as much as at the upper ends. We suggest that they are in some sense protective against the weather (rain and flood-water) rather than against the depredations—thatch-eating propensities—of cattle. This view receives support from Ty Talwyn B. The larger building here has no outer bank, because it was protected by the banks of the yard on the upper side (FIG. 8). Excavation would quickly throw light on this and other constructional problems.

THE ' RESIDENCE '

We have seen that the levelling of an area for building is a constant feature of the culture represented by the farms. We can study the application of the principle to a large establishment, in an irregular complex described on the Ordnance Maps by the pompous title of ' British Fortified Residence '. It occupies an area about 50 by 60 yards at 650 feet above O.D., on a hillside facing northeast and about 700 yards to the north of the Ty Talwyn settlements (see FIGS. 2 and 9). In order to secure a level site, the builders quarried a segment of the hillside, making dumps of their unwanted material on the lower slopes. The larger tip is of a bastion-like character, but it was not utilized, the northeast boundary bank of the settlement passing across its margin. The settlement was completely open and unprotected.

There are two entrances. The most important is that on the northwest side. This leads from the existing, and probably ancient, hollow-way, which descends to Nant-y-Gadlys. Moving from this hollow-way towards the site by a depression—the line of the old track—one has on the left ' the Long House ', in part double-banked, and in front ' the Square House '—evidently the main dwelling. This measures some 30 ft. each way and consisted of three rooms. Adjacent to it are two rounded hollows which look like hut-floors, and around it are three enclosures—yards or courts.

The southeast approach to the complex is between two banks which begin on the flank of a small ravine which may have afforded a water supply; it is now (March 1934) dry. This banked approach gives access to the largest of the courts. The adjacent ' High Place ' is curious; it has a steep scarp overlooking three of the courts, but an easy slope outwards. A parapet or low bank bounds it on three sides,

FORTS AND FARMS ON MARGAM MOUNTAIN

but it does not appear to have had any buildings on it, and there is no apparent means of access to it. As the section (C-D) shows, it represents an area of unquarried hillside projecting into the quarried area, with perhaps a slight addition of soil. In this connexion we are reminded that the farmyard area of Ty Talwyn B was not wholly levelled down. The boundary banks of the 'Residence' moreover, like the farm-yards and enclosures, are angular and approximately straight-sided, but show irregularity in detail. Another parallel is provided by the rectangular building (part of the 'Long House'), which looks very like House II, Baiden Farm. Its position close to the main entrance is such that the farming activities of the owner of the 'Residence' might well have been centred there. There is an enclosure (cattleyard?) the beginning of which is shown on the plan, extending to the northwest from the 'Long House'. We suggest then that the 'Residence' was in the occupation of a landed proprietor or large farmer contemporaneously with the small farms.

THE DATES OF THE FORTS AND FARMS

We are now in a position to summarize our evidence.

Y Bwlwarcaw, like the other forts, is regarded as sub-Roman; it was probably in use in the 6th century, when Bodvoc died. At some subsequent time it ceased to function and farmers settled there, modifying its defences to suit their peaceful purposes. They constructed platforms, for buildings of unknown character.

Other farmers with more elaborate building technique set up similar structures on the mountain, definitely square-ended with opposite doors, some probably of wood on a sill of turf, others stone-walled with earth filling. The idea of a level platform was in one farm applied also to the whole area of a steading, and in the same district to a larger and more ambitious building complex.

What is the latest date for this group of constructions? We can say of one member of the group, the 'Residence', that it is of pre-Norman character. It has no motte, it is not medieval in plan; and a person of the importance of the owner of the 'Residence' in Norman times would be living in a different situation. This latter point can be illustrated in our own area; the castle of the Norman lordship of Tir Iarll (Llangynwyd) is situated in the valley (see FIG. 2). The 'Residence' is, however, not wholly characteristic of the group, and we have considered the possibility that the Farms are summer dwellings (*hafods*) or sheepfolds of comparatively recent date. But no inhabited

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sites in Wales known to us or that we can hear of show their peculiar characters, and the culture they represent is ancient enough, it would appear, to have completely died out. A pre-Norman date for the farms, then, is as probable as for the 'Residence'.

We have ample time, from *c.* A.D. 550, the death of Bodvoc, to *c.* A.D. 1100, the Normanization of the Llangynwyd district, for the variety of domestic or pastoral buildings and lay-outs under review. The earliest possible date is A.D. 650–750, one or two centuries after Bodvoc; and we think that this date is more likely than a later one,¹² bearing in mind, of course, the possibility of long survival, even into medieval times, of individual structures.

The Forts and Farms on Margam Mountain, then, if our arguments are sound, illustrate the little-known social, cultural and economic life of South Wales in the Dark Ages. The farm buildings, whatever their specific function, are particularly interesting because diligent enquiry has failed to elicit significant parallels in the British Isles or Scandinavia. Their origin cannot therefore, at present, be surmised: but we may not be far wide of the mark if we regard the 'Residence' as a belated expression in the Highlands of the country-house tradition established by the Romans in Lowland Britain. Both Forts and Farms present, in their groups, essential unity of design and function, and must reflect periods of cultural stability.

Finally, our survey has shown that excavations at not less than three sites—Y Bwlwarcau, the 'Residence' and one of the isolated farms—are necessary in order to establish the cultural history of Margam Mountain.

NOTE: Since this paper was written seven farm-steads similar to the above have been discovered by the writers in collaboration with Mr P. Murray Threipland, six on Cefn Gelligaer and one on Cefn Y Brithdir, Glamorgan, at elevations of from 1250 to 1350 feet. On each mountain there is an inscribed stone of the 6th or 7th century. Readers of ANTIQUITY who may know of such structures in other parts of Wales or elsewhere are desired to communicate with the authors.

¹² Local tradition is indeed in favour of an earlier date for the 'Residence'; the Editor has kindly sent us a copy of the testimony of the vicar of Llangynwyd in 1875 concerning it, from the archives of the Ordnance Survey. It is said to have been the dwelling of Cynan, son of St. Cynwyd, the founder of Llangynwyd Church: he flourished at the end of the 6th century. But for Cynwyd, see Baring-Gould & Fisher, *Lives of the British Saints*, I, pp. 274–5.

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APPENDIX

FARMS ON MARGAM MOUNTAIN: TABLE OF BUILDINGS

All measurements are taken from the centres of the inner banks (where such are present) as being the best available indication of the position of the walls. Otherwise the figures indicate the area of the 'platforms'.

Name		Length	Breadth	Ratio of B. to L.	Orientation
Y Bwlwarcau :	House-site A	59' 0"	24' 0"	1 : 2.5	S-N
"	House-site B	41' 0"	22' 0"	1 : 1.9	S-N
Lluest Wen Farm A,	House-site ..	44' 0"	20' 0"	1 : 2.2	SE-NW
"	Farm B, House-site ..	30' 0"	16' 0"	1 : 1.9	SE-NW
Baiden Farm :	House I ..	49' 6"	19' 9" (1)	1 : 2.5	SW-NE
"	House II ..	41' 6"	19' 0" (2)	1 : 2.2	SE-NW
Ty Talwyn Farm A :	House I ..	56' 0"	21' 0"	1 : 2.7	S-N
"	House II ..	30' 0"	15' 0"	1 : 2	S-N
Ty Talwyn Farm B :	House I ..	57' 0"	21' 6" (3)	1 : 2.7	S-N
"	House II ..	35' 0"	Uncertain		S-N
Residence :	House ..	31' 6"	16' 6"	1 : 1.9	SE-NW

(1) 20' 6" one end 19' 0" the other
 (2) 20' 0" " " 18' 6" " "
 (3) 21' 0" " " 22' 0" " "

It is difficult to determine the dimensions exactly, and the actual house-walls may have been nearly parallel.

Archaeology and the State

by GRAHAME CLARK

THE interest of the State in the ancient monuments and civilizations of Britain is recent in origin and limited in extent.¹ It is the purpose of this paper to trace in outline the growth of State interest, the limits of State control at the present time, and the main *lacunae* which appear to exist in the mechanism for the preservation of our national antiquities. Before embarking on this topic it might be well to point out the two chief reasons why, before 1882, the State undertook little or no responsibility within a sphere now generally recognized as the proper concern of any civilized state. In the first place the study of British Archaeology has only within the last fifty years reached a degree of accuracy and discipline worthy of the expenditure of public funds ; it is of the utmost significance in this connexion that the first scientific British archaeologist, General Pitt-Rivers, was appointed as first Inspector of Ancient Monuments under the Act of 1882. Subsequent students of the subject, no less than the tax-payers of the day, may congratulate themselves that certain of the earlier figures of British archaeology were not invested by the State with powers that might well have increased the extent of those devastations which we have good reason to mourn at the present time. In the second place the whole conception of the State exerting its power for the conservation of a national heritage at the expense of a narrowly conceived view of private property is of itself a product of recent constitutional changes, reflected in the successive extensions of the franchise between 1867 and 1918. The various Ancient Monuments Acts, etc. may be considered as manifestations of the same social conscience that successfully demanded such measures as the regulation of conditions of employment, insurance for work-people, provision for unemployed persons, compulsory education, suitable housing for the poor, and the nationalization of certain resources such as petroleum.

¹ We are dealing here with England only.

ARCHAEOLOGY AND THE STATE

We shall consider the question of the relations of the State to archaeology under four separate heads :—

1. The preservation of monuments.
2. The mapping of antiquities.
3. The preservation of loose antiquities.
4. Museums.

I. THE PRESERVATION OF MONUMENTS

It will be convenient first of all to pass in review the successive Acts of Parliament by which the State has recognized, and to a large extent assumed, its obligations in respect of the preservation of monuments of national importance.

The Ancient Monuments Protection Act, 1882, is chiefly important in that it constitutes the earliest recognition by the State of its responsibility for national monuments. Some 68 monuments in the British Isles were specified in a schedule as being of national importance, and among them were numbered such famous sites as Stonehenge, Avebury, Arbor Low, and New Grange. The Act provided that anyone, *the owner excepted*, convicted of damaging or defacing any of these monuments would be liable to a fine not exceeding £5 or one month's imprisonment. Secondly it provided that *owners should have power* to constitute as guardians (of any of the monuments on the schedule) the Commissioners of Works, who would thenceforth be responsible for their maintenance ; in this event the owner would become liable to the same penalties as any member of the general public for any damage he might do. Thirdly the Commissioners could *with the consent of the owner* and of the Treasury purchase any monument on the schedule, and fourthly they could accept as a gift or bequest any such monument. Finally it was provided that one or more inspectors be appointed by the Commissioners of the Treasury 'to report . . . on the condition of such monuments, and on the best mode of preserving the same'.

As previously intimated the Act is important more as an indication of dawning responsibility than for any real power that it bestowed on the State for the implementing of its intentions. The authority of an owner over his property, even where expressly stated by the Act to be of national importance, remained unimpaired unless of his free will he placed it under the guardianship of the Commissioners of Works, or sold, gave or bequeathed it to the same authority. It is no surprise, therefore, that the first Inspector appointed under the Act, General Pitt-Rivers, soon wearied of his task and felt compelled to offer his

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resignation after seven years' experience of Government inactivity.² In actual fact, the Act being almost entirely permissive in character, the Government enjoyed no authority to act even assuming it felt the desire or the responsibility.

More elasticity was secured by the Act of 1900, which empowered the Commissioners of Works to become guardians at the request of the owner of *any* monument (as opposed to scheduled monuments only) when its preservation was considered to be 'a matter of public interest by reason of the historic, traditional or artistic interest attaching thereto'. The only exceptions to the scope of the Act were dwelling-houses occupied by anyone other than a caretaker and family. This Act is interesting in that it empowered County Councils to purchase by agreement, to become guardians of, and to contribute towards the cost of maintenance of, monuments within their counties 'or in any adjacent county'. Another important principle that was to survive was that of public access to monuments within the ownership or guardianship of the Commissioners or of the County Councils; in the latter case the permission of the owner was necessary. For the purposes of the Act 'monument' was defined as 'any structure, erection, or monument of historic or architectural interest, or any remains thereof'.

The Act of 1910 empowered owners to give or will monuments within the meaning of the Act of 1900, thus remedying a careless omission from that Act.

The Acts of 1900 and 1910 did little to lessen the essential weakness of the original Act. A memorandum by the First Commissioner of Works, published in the Annual Report of the Inspector of Ancient Monuments for 1912, is worth quoting in this context; 'existing Acts', it stated, 'are purely permissive in character. The State cannot undertake the guardianship, or arrange for the protection, of any monument, except with the consent, and indeed by the desire, of the owner'. The First Commissioner went on to point out that many monuments were falling into decay, declaring in conclusion . . . 'it is, in my opinion, most desirable that the State should have power to intervene in such cases'. The result was the new Act of 1913, which repealed the previous Acts, consolidated their main provisions relative to purchase and guardianship, and added in the Preservation Order a potent weapon in the struggle to prevent the destruction and decay of monuments of national importance.

² *Vide* Third Annual Congress of Archaeological Societies, 23 July 1891.

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The Commissioners of Works were empowered to constitute an advisory board, known as the Ancient Monuments Board, and composed of representatives drawn from the Royal Commissions on Historic Monuments, the Society of Antiquaries of London, the Society of Antiquaries of Scotland, the Royal Academy of Arts, the Royal Institute of British Architects, the Trustees of the British Museum, and the Board of Education. It was on the advice of this Board that the Commissioners were enabled by the new Act to place under the protection of the State by means of a Preservation Order any monument of national importance declared to be in danger. In order to ascertain the state of any monument the Board were empowered to carry out an inspection. The Preservation Order would be effective for 18 months unless confirmed by Parliament, and if unconfirmed at the end of that time it could not be applied to the same monument for a period of five years. When in force the Preservation Order placed a monument under the protection of the State, carrying with it penalties of a fine of £5 or for any damage or alteration one month's imprisonment. Moreover if any monument, the subject of a Preservation Order, appeared likely to fall into decay, the Commissioners were empowered to make an order constituting themselves guardians of the monument for the duration of the Preservation Order *without the consent of the owner*. The Commissioners were further enabled to take measures for the protection of a monument, the subject of a Preservation Order, *with or without the permission of the owner*.

The 1913 Act provided a second important check on the destruction of monuments. The Commissioners of Works were instructed to publish a schedule from time to time of 'such monuments as are reported by the Ancient Monuments Board as being monuments the preservation of which is of national importance', and to inform owners when fresh monuments were added to the list. It then became the duty of owners to give one month's notice of their intention 'to demolish or remove in whole or in part, structurally alter, or make additions to, the monument', so allowing time for a Preservation Order to be issued. The penalties for failing to give such notice as the Act required were a fine of £100 or imprisonment for three months or both.

From the provisions of this Act, as of previous Acts, all inhabited dwelling-houses, other than those occupied by a caretaker and family, were excluded as well as buildings at present in ecclesiastical use. The definition of 'monument' was, however, somewhat widened to include 'any part of the adjoining land which may be required for the purpose

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of fencing, covering in, or otherwise preserving the monument from injury', and further 'the means of access thereto'.

A major defect of the 1913 Act was revealed in a dramatic manner when a Company was formed for quarrying the rock in the immediate neighbourhood of the Roman Wall. The Wall itself and its subsidiary constructions were protected under the Act and many people assumed that the protection would extend to such parts of their immediate surroundings as gave them their character and meaning. This assumption, however, proved groundless when tested by this practical case and the grandeur of the Wall was only saved to the Nation by the munificence of a private individual. The outcome of the scare was the Act of 1931.

The new Act introduced the principle of the 'controlled area' by which the Commissioners were empowered to delimit such an area contiguous to a monument as will ensure the full preservation of its amenities. Within the area controlled buildings can be prohibited or restricted and their design and appearance prescribed, excavations and tree felling can be prohibited and any other restrictions imposed that may be necessary. The owner can be compensated for any loss he may sustain through the restrictions, but for any contravention of the scheme he may be fined up to £20 a day. In various other ways the Act of 1913 was tightened up and in some cases its provisions were extended considerably in scope.

The Act of 1931 has been in force for too short a period for its full weight to be felt; it would, however, be safe to say that the legislative powers at present possessed by the Commissioners of Works for the preservation of ancient monuments of national importance are greater than is generally realized. Financial considerations are bound to curb development to a certain extent and it is certain that the Commissioners will not exert their powers too much in advance of public opinion. With these reservations, however, it remains a fact that by the exercise of powers already legally entrusted to them the Commissioners could control the whole of the archaeological excavation of the country: not only are the Commissioners themselves empowered to carry out excavations, but by including 'any cave or excavation' within the definition of 'monument' they are able to employ the Preservation Order and other weapons to stay undesirable excavations by others. Legally, indeed, it would seem that the Commissioners of Works could bring to an end all excavation by individuals or societies, and themselves exercise a complete monopoly. Present practice, as

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well as the traditions of the country, indicate that in fact the Commissioners will co-operate with individuals and bodies of proved competence; meanwhile it is satisfactory to know that powers exist which may curb the inefficient, uneconomic, and therefore anti-social, excavation that is still responsible for the steady destruction of ancient monuments. The only tragedy is that the necessity for these powers was not earlier appreciated. The extent and rapidity of the destruction of ancient monuments by agriculturalists and archaeologists during the last hundred years has been appalling. We illustrate (FIG. 1) the distribution of megalithic monuments in a district of Hannover, which happens to have been accurately surveyed in 1846 and again in 1914;

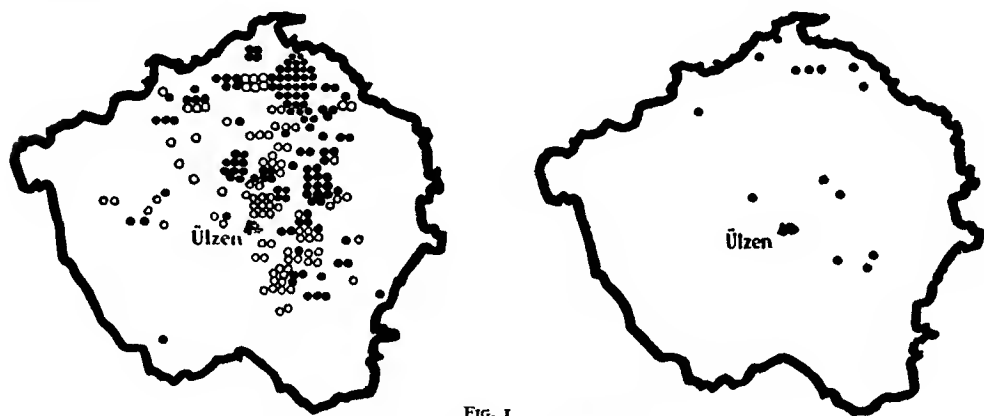


FIG. 1

(Reproduced by courtesy of Dr Jacob-Friesen, Hannover)

The left-hand map illustrates the distribution of megalithic tombs in the *kreis* of Ülzen in the province of Hannover, as surveyed by C. von Estorff in 1846, when 129 survived relatively intact and at least 90 survived in a damaged condition. That on the right shows the distribution of the same class of monument as observed by Dr Jacob-Friesen in 1914, when no more than 14 examples survived.

the destruction revealed by a comparison of these surveys is probably not abnormal.³ The powers possessed by the Commissioners may appear dangerous on paper, but in the face of such menaces they are certainly not too great; we feel confident that in practice the English tradition of co-operation between State and individual will assert itself and nullify the possibility of any centralized bureaucratic control.

THE INSPECTORATE OF ANCIENT MONUMENTS

In describing the gradual development of the legal control by the Commissioners of Works over ancient monuments of national

³ e.g. Dr Fox's remarks on the destruction of round barrows in *The Archaeology of the Cambridge Region*, pp. 28-9.

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importance we have necessarily referred constantly to the machinery by which the Acts are enforced. The original Act of 1882 provided for the appointment by the Treasury Commissioners of 'one or more inspectors of ancient monuments, whose duty it shall be to report to the Commissioners of Works on the condition of such monuments, and on the best mode of preserving the same'. General Pitt-Rivers was appointed in 1882 and held the position until his death in 1900, though disgust at the futility of the Act prevented him from drawing his salary or taking any very active interest after 1890. After the death of the General, indeed, the office fell into abeyance. A good deal of work was done unofficially by Mr J. Fitzgerald, who had overtaken the arrears of work by 1908, only to die in the following year. In 1910 Mr (now Sir) C. R. Peers was appointed and it was under his leadership, as Inspector to 1913 and Chief Inspector from then till 1933, that the Inspectorate as it exists today was built up. It not only controls in practice the machinery for the preservation of ancient monuments, but in the person of its late Chief Inspector, it did much to mould the course of the necessary legislation. Moreover the same annual report (1912) of the Inspector which exposed the inadequacy of the then existing Acts also laid down the fundamental principles which have in practice guided the Commissioners of Works in the actual work of preservation. The Commissioners were to avoid 'as far as possible . . . anything that can be considered in the nature of restoration' and were 'to confine themselves rigorously to such works as may be necessary to ensure their stability, to accentuate their interest, and to perpetuate their existence in the form in which they have come down to us'. Up till the end of 1933 the total number of monuments in England scheduled for protection had reached 2205.

THE ROYAL COMMISSION (ENGLAND)

As a necessary preliminary to the extensive preservation of monuments of national importance by the State an authoritative survey of all existing monuments of a certain antiquity was and is a paramount necessity. A Royal Commission was therefore appointed in 1908 'to make an inventory of the Ancient and Historical Monuments and Constructions connected with or illustrative of the contemporary culture, civilisation and conditions of life of the people in England, excluding Monmouthshire, from the earliest times to the year 1700, and to specify those which seem most worthy of preservation'. The first Secretary to the Commission was the late Sir G. E. Duckworth

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(1908-33), during whose term no less than fifteen volumes were published notwithstanding the interruption caused by the Great War. The volumes have set and maintained a standard of accurate scholarship which is widely recognized, yet they are so written and illustrated as to appeal to the general educated public. They thus serve not only to provide the accurate information required for a comprehensive policy of preservation by the State, but also to broaden interest in the antiquities of the country and to stimulate that public opinion which is so necessary to the satisfactory operation of the Acts. Considering the attention to detail and the wealth of the material dealt with the output of the Commission has been astonishing. During the first period of activity between 1908 and 1915 the English Commission investigated no less than 5631 monuments in 462 parishes, while on resuming its activities from 1919 until 1923 it dealt with 3554 monuments in 314 parishes. In this way the investigation of the monuments of the counties of Hertfordshire, Buckinghamshire and Essex was completed. The Commission next turned its attention to the difficult area of London, on which it published five volumes between 1924-30 in addition to a sixth volume for Huntingdonshire. From 1930-2 2480 monuments in 169 parishes were investigated in Herefordshire, the third and final volume on which has been published recently. Whilst engaged on counties the Commission has investigated well over 700 monuments annually, a truly amazing record of achievement when one considers that many of the monuments concerned are of considerable size and complexity. The cost to the tax-payer is, owing to the speed with which the work is done, almost negligible. Working on the basis of the average number of monuments investigated and the total estimate of annual expenditure it costs about £8 to have each of our English monuments investigated, truly a small enough sum to secure such a birthright.

2. THE MAPPING OF ANTIQUITIES : THE ORDNANCE SURVEY

It is a truism of modern archaeology that one of the most significant facts about antiquities is their exact provenance, and the State in the guise of the Ordnance Survey has contributed handsomely to British archaeology in this respect. Although at present a department under the Ministry of Agriculture and Fisheries, the Ordnance Survey was military in origin and is still mainly staffed by Royal Engineers. Owing, however, to the antiquarian interests of General Roy (1726-90), author of *The Military Antiquities of the Romans in North Britain* and virtual

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founder of the Survey, archaeological information has from the beginning been incorporated on its published sheets. We illustrate (FIG. 2) part of a sheet of the original 1-inch survey on which archaeological features were marked. Roy's tradition was ably maintained by subsequent Directors, notably by Sir Charles Close, and ultimately resulted in 1921 in the appointment of an Archaeology Officer to the staff. The primary task of this Officer is to ensure the accuracy of the archaeological features printed on the maps issued to the public, to revise the information for new editions and, so far as is practicable, to incorporate fresh discoveries as they are made. In this way the State is able to ensure the adequate cartographic record of its antiquities at a negligible cost, and the general public is given accurate information on its maps. There is no doubt that the practice of marking the sites of antiquities on the ordinary official maps has done much to broaden general interest in the subject, and for this reason alone the institution of an Archaeology Officer has been invaluable ; but already there is a growing public with a special interest in archaeology and to serve this the Ordnance Survey is producing Period Maps, which are models of their kind. Those already published include Roman Britain, 17th century England, two sheets of a Megalithic Survey, and the first sheet of a survey of the Celtic Earthworks of Salisbury Plain. The staff can hardly be regarded as commensurate to the magnitude of its task, but it is important that the accurate mapping of national antiquities has been recognized in principle as a legitimate charge upon public resources.

It will be convenient to note under this heading the contribution made to British archaeology by the Royal Air Force, since in practice the air-photographs of archaeological interest taken during the course of training are dealt with at the Ordnance Survey. The air-photographs are filed at Southampton and prints may be bought by the general public (crown copyright being reserved). It is interesting to notice that the survey of Celtic Earthworks on Salisbury Plain has largely been based upon air-photographs taken by the R.A.F. in the normal course of duty.

3. PRESERVATION OF LOOSE ANTIQUITIES

When we come to examine the powers exercised by the State over moveable antiquities we find ourselves confined to a consideration of the law of treasure trove, since apart from its jurisdiction within this extremely narrow sphere the State appears to have no powers over antiquities found in its own soil, unless within the area of a National Monument within its ownership.

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Fortunately one more qualified in every way to discuss the subject has recently published an important paper on 'The law and practice of Treasure Trove' (*Antiquaries Journal*, 1930, pp. 228-41), so that it will be unnecessary to enter into any detail. As is the usual case with the laws and institutions of our island the origins of the law of treasure trove are lost in the mists of antiquity, mists into which we have no desire to stumble. Sir George Hill has given us the key to the proper understanding of the law when he bids us consider it as no more than 'a specific application of the common law of the land, which provides that the estate of a person dying intestate with no known heirs becomes the property of the Crown'. We feel incompetent to define the law in a manner likely to commend itself to a lawyer, and confident that if we succeeded we should fail in the more important task of conveying information to the general public. We shall rest content, therefore, with stating the fundamental facts which determine whether or not a given find falls within the category of treasure trove. In brief the law applies only to treasure that has been hidden and of which neither the owner nor his representative can be found, the treasure itself being either of gold or of silver. It does *not* apply to treasure that has been abandoned,⁴ *nor* does it apply if the owner can be found, *nor* does it apply to any objects other than those of gold or silver.

In origin there is no doubt that treasure trove was solely designed to secure revenue to the Crown and to this day the concealment of treasure trove remains a misdemeanour. It is, therefore, the police who are responsible for seeing that treasure trove is properly reported, and it is by a Coroner's inquest that it is decided whether or not a given find is in fact treasure trove. The attitude of the Treasury, however, to whom the treasure is ultimately delivered, has undergone a welcome change, and the law of treasure trove as today administered forms part of the machinery by which the national antiquities are preserved by the State. This change of attitude can be summarised quite briefly by considering the position of the finder of treasure trove. Up till 1871 his chances of receiving any reward at all were doubtful and until 1886 he was paid only the bullion value of his find. The Treasury Minute of 13 July 1886, however, marks a new step forward, and taken in

⁴ In the words of Judge Baylis, writing in the *Archaeological Journal* (1886, XLIII, 342) and quoted by Sir G. Hill, the treasure 'must be found hidden *in* the earth or in the walls, beams, chimneys, or other secret places above the earth, but affixed to the soil'. 'If found *on* the earth or in the sea' it is not hidden, but abandoned and therefore outside the scope of the law.

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conjunction with the Ancient Monuments Act of 1882 can be taken as a definite indication that the State was no longer indifferent to the fate of its antiquities. The minute stated: 'My Lords have stated that the Crown right to treasure trove, regarded financially, is valueless, and that special cases excepted, they would not assert the Crown's claim at all. They, in fact, only interest themselves in the matter to assist the efforts of Antiquarian Societies for the preservation of objects of general interest'. In order to further this desirable object finders of treasure trove who properly reported their finds were from this date rewarded on the basis of the antiquarian value of their discoveries, subject only to a deduction of from 10 per cent. to 20 per cent. Finally within very recent years the Treasury has waived its right even to this small deduction.

In practice, once the Crown's right to the treasure has been established by a Coroner's inquest, its administration is delegated by the Treasury to the British Museum. At the British Museum the treasure is examined and valued by experts on the basis of its market value. Any objects not retained by the British Museum, the Royal Mint, local museums or the owner of the land on which they were found, are returned to the finder, who receives in addition the full value of any objects retained. In this way every encouragement is given to anyone who finds treasure trove to report to the police without delay, in order to qualify for a reward fixed by impartial and expert opinion. Meanwhile the penalties for intentional concealment still remain, and the alternative to receiving a financial reward is a fine and imprisonment with hard labour.

Admirable in its limited scope though the law of treasure trove may be in these latter days, when it works for ends entirely foreign to those which inspired the evolution of its mechanism, it can hardly be regarded as an efficient method for the safe-guarding of moveable national antiquities as a whole. The insufficiency of a law which takes into account only objects of gold and silver (and even those only when found under certain circumstances) is well illustrated by the maxim of General Pitt-Rivers, the father of modern British field-archaeology, that 'the value of relics, viewed as evidence, may . . . be said to be in inverse ratio to their intrinsic value'.⁵

At the present time antiquities other than those coming within the scope of treasure trove belong to the ultimate owner of the land upon

⁵ Preface to volume III of *Excavations in Cranborne Chase*, p. ix.



Fig. 2. PROOF OF THE FIRST EDITION OF A SHEET OF THE 1-INCH ORDNANCE SURVEY MAP published 14 August 1817, with corrections in the handwriting of Sir Richard Colt Hoare. It shows the district to the northeast of Salisbury with the valley of the river Bourne. Figsbury can be seen in the left-hand bottom corner. Numerous tumuli are also indicated.

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which they are found. It is a curious anomaly that while monuments and constructions of national importance have been to a very large extent socialized by the Acts and the machinery which implements them, loose antiquities, including in some cases the very objects which give indication of the date or associations of a monument of national importance, are left unprotected to be bought and sold, collected or lost, or intrigued for by museums. The anomaly is brought home the more when we consider that the archaeological objects in monuments placed under the protection of (but not the property of) the Commissioners of Works belong to the land-owner and not to the State, even though they alone might lend any meaning to the monument in question. The attitude adopted by the modern State that ancient monuments are in effect the heritage of the nation and not the playthings of individual land-owners seems to demand some measure of protection for loose antiquities found in the soil. The enlightened manner in which the law of treasure trove is now administered is so much to the good, but it is totally insufficient to ensure the proper preservation of what ought to be regarded as part of the national heritage.

Before leaving the subject of loose antiquities it might be useful to mention the Geological Survey, since for the earlier periods of archaeology monuments and constructions tend to give way to geological sections. Much has been done in the past by individuals on the staff of the Survey, such as Skertchley and Jukes-Browne, and much is now being done to notice features of archaeological interest in the course of geological work. We suggest, however, that an archaeological staff officer similar in status to the one attached to the Ordnance Survey might save a vast amount of information about the earlier periods of British Archaeology that is now lost.

4. MUSEUMS

An essential part in the preservation of antiquities is played by museums, and it is therefore necessary to consider how far those in this country are organised and how far they are in themselves equipped for the services they ought to render to the community. In actual fact there is very little to consider, since there is an almost total lack of organization and system for the museums as a whole, and with very few exceptions the individual institutions lack the first elements of a proper equipment.

In his most admirable Report on the Public Museums of the British Isles prepared in 1928 for the Carnegie United Kingdom

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Trustees, Sir Henry Miers stated that 'one of the peculiarities of the present museum system in England, Northern Ireland and Scotland is the almost entire absence of any form of co-operation'. This is perhaps partly due to the fact that the museums have grown up or rather struggled into existence singly and unrelated to any plan. Some museums are private, others belong to Societies of various kinds, others are attached to Universities and Schools, a great number are run by municipalities, and a few are of national character. Over the first three categories there is no kind of public control. The municipal museums maintained by the rates came into being as a result of the Museums Act of 1845 and subsequent Acts, all of which were mainly concerned with empowering local authorities to appropriate public money to the upkeep of museums. Legislation on the subject of museums has been concerned almost solely with the purely financial aspect of the situation, and the management of each institution is left in the hands of a committee of the local council. The only national museum with which we are concerned here is the British Museum, which is still run along the lines laid down by the British Museum Act of 1753, vesting the museum and collections in a Board of Trustees, and laying down the principle of free access for the public. Strictly speaking the British Museum is the only museum in England containing substantial collections of British antiquities for which the State is responsible. There are no formal relations between the British Museum and other museums in the country of any kind whatsoever, except in so far as the British Museum is authorized under certain conditions to distribute duplicate specimens. An organized system of museums in this country simply does not exist. Their distribution is 'of the most haphazard nature', they have no defined spheres of influence, and they are linked by no connexion either with one another or with any central institution.⁶

No intelligent person reading Sir Henry Miers' report could fail to be shocked by the glaring inadequacy of the equipment of the museums dealt with. As regards staff Sir Henry Miers found that in only 14 per cent. of the museums of the British Isles was there a full-time paid curator, while in only 4 per cent. was there an assistant curator. He further found that in many instances the curators appointed lacked 'any previous training or experience', while one of

⁶ This reflects in no sense on the work of the Museums Association of which Sir Henry Miers stressed the importance and value.

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the chief facts disclosed by his enquiry revealed a 'disgracefully low standard of salaries', salaries falling on the average 50 per cent. below the minimum recommended by the Museums Association. As to buildings he found that 'only 10 per cent. of the museums in the country are housed in a separate building (good or bad) designed for the purpose', while 'very few of the museums in the country are provided with the storage rooms or work-rooms which are essential'. Small wonder is there 'that almost all museums contain collections . . . consisting to a great extent of mere curios'!

With the educational aspect of museums, important though it is, we are not here concerned, but rather with the bare preservation of antiquities, which should be a national interest. If the State is to extend its interest from monuments and constructions to the objects which so often date them and invest them with meaning and associations, it seems clear that it will also have to take in hand the whole problem of the proper organization of museums. It would appear that there are certain drastic changes necessary, and we suggest that there are certain elementary pre-requisites for efficiency :

- (a) Museums should be set up where they are required.
- (b) They should no longer exist as isolated and in some cases competing units. They should in some way be related to the National Museum, and they should each serve a recognized territory.
- (c) They should be staffed by trained curators, who should be paid salaries bearing some relation to their attainments and social value.
- (d) The buildings in which collections are housed should be designed as museums, and should be equipped to meet the needs of the various classes of person using a museum.

These requirements are simple enough and their cost quite trivial when compared with the millions spent on other 'services', social and otherwise. Moreover a State policy for museums seems to be the logical conclusion of the policy for the preservation of national antiquities, to which the State is already partly committed. With the museums in their present state any effective control of antiquities, other than monuments or constructions, would appear to be difficult if not impossible. Conversely it must also be clear that so long as the private ownership of antiquities from English soil is tolerated by the State it must remain difficult for the museums to help themselves. The necessity of negotiating for objects with private individuals imposes

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an intolerable burden upon museum staffs, and frequently means the acceptance of junk, hampering restrictions on the proper utilization of objects, and even the temporary suppression of provenance.

In conclusion it would be true to say that while the State has been eminently successful in the limited spheres of archaeology into which it has entered, much is lacking before a comprehensive policy for the preservation of the national heritage of antiquities can be said to exist. While the preservation of monuments and the mapping of antiquities are both on a sound basis, there is no organization for the preservation of loose antiquities other than treasure trove, and no organization of museums in which to house and exhibit them.

ARCHAEOLOGICAL PUBLICATIONS OF THE ORDNANCE SURVEY

Map of Roman Britain, 1928.

Map of xvii Century England, 1930.

Megalithic Survey :—

Professional Paper, 6. The Long Barrows and Stone Circles of the Cotswolds and the Welsh Marches. (Sheet 8, $\frac{1}{4}$ inch map), 1922.

Professional Paper, 8. The Long Barrows and Megalithic Monuments of Kent, Surrey and Sussex. (Sheet 12, $\frac{1}{4}$ inch map), 1924.

Map of Neolithic Wessex. (Sheet 11, $\frac{1}{4}$ inch map), 1933.

Map of the Trent Basin. (Sheet 6A, $\frac{1}{4}$ inch map), 1933.

Professional Papers :—

No. 7. Air Survey and Archaeology, 1924.

No. 10. The Work of the Ordnance Survey : Archaeology and the Ordnance Survey, by O. G. S. Crawford, 1926.

No. 12. Air Photography for Archaeologists, 1929.

Celtic Earthworks of Salisbury Plain : Old Sarum, 1934.

N.B. The Megalithic Survey will be completed in eleven sheets, and the survey of Celtic Earthworks of Salisbury Plain in six. It should be noted that the first two sheets of the Megalithic Survey (numbers 8 and 12 in the Old Series) were published as Professional Papers (numbers 6 and 8 above), so that four sheets have been dealt with. Three more sheets are rapidly nearing completion and publication. East Anglia contains no megalithic monuments so that no map of this area will be published. The precise position of the Survey cannot be stated concisely, owing to the fact that, since it was begun in 1924, the sheet-lines of the $\frac{1}{4}$ inch map, which was then adopted for convenience as the publication unit, have twice been altered. But it may be said that only two whole sheets (7 and 10 in the present series) and one half-sheet (the eastern, or mainland, portion of Sheet 2) have not yet been touched. When the Megalithic Survey is complete, the combined results will be published on a single Period Map on the scale of 1 : 1,000,000 uniform in style with the maps of Roman Britain, xvii Century England and the forthcoming Map of Britain in the Dark Ages.

Defences against Cattle-Raiding

by G. W. B. HUNTINGFORD

'Beech Bottom dyke would break the heart
of any cattle-raider'.—DR R. E. M. WHEELER.

WHEN I suggested, in commenting on this quotation,¹ that an African cattle-thief would laugh at Beech Bottom dyke, Mr Crawford did not agree; and the idea that seems to prevail with regard to the stopping-power of a ditch and bank is responsible for these notes.

Cattle-defences may be considered under two heads: 1, Fences: 2, Dykes: the latter being actually of secondary importance when the object in view is to keep cattle in or out; and stockades without a ditch do occur in Britain.²

Fences which do not involve the use of iron are of four kinds:

(1) The post and rail stockade (PLATE I), where the uprights are sunk at least 2 ft. into the ground, and often deeper.

(2) The dead hedge (PLATE II), '*Saeps agrestis e ligno, sed non vivit*' of Varro,³ consisting of branches and poles set upright in shallow holes, with brushwood interlacing.

(3) The trunk fence, consisting of trunks laid lengthwise and close together, with a filling of loose branches and brushwood, and recalling the blocked fort-entrance described by Caesar.⁴

(4) The stone wall.

Excluding the stone wall, which is only found in certain parts of Britain, it may be said that the first three types of fence are in themselves more or less effective cattle-defences. A sufficiently stout post and rail fence provides almost complete security; the dead hedge, which is the ordinary fence used by the pastoral tribes of East Africa, is secure up to a point, though when cattle are scared by a sudden alarm they can usually break through it somewhere. The trunk fence, if the amount

¹ ANTIQUITY, 1933, VII, 25.

² *ib.* 484.

³ *Res Rusticae*, I, 14. §2. Goetz.

⁴ B.G., v, 9, 4.

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and size of the trunks is large enough, is usually fairly effectual, though it is more laborious to erect. None of these fences requires a ditch to keep cattle inside.

As to dykes in connexion with cattle, it may be noted that unless their sides are almost perpendicular—in fact much steeper than any earthwork in Britain—they are no barrier to cattle; for cattle can climb without trouble slopes which a man finds very difficult. They are sure of foot in rough or stony places, and have remarkable powers of keeping on their feet on wet, slippery ground. In hilly country in East Africa, moreover, they graze on very steep hillsides, and even on railway embankments with a slope of $1\frac{1}{2}$ in 1. In order to test the matter,

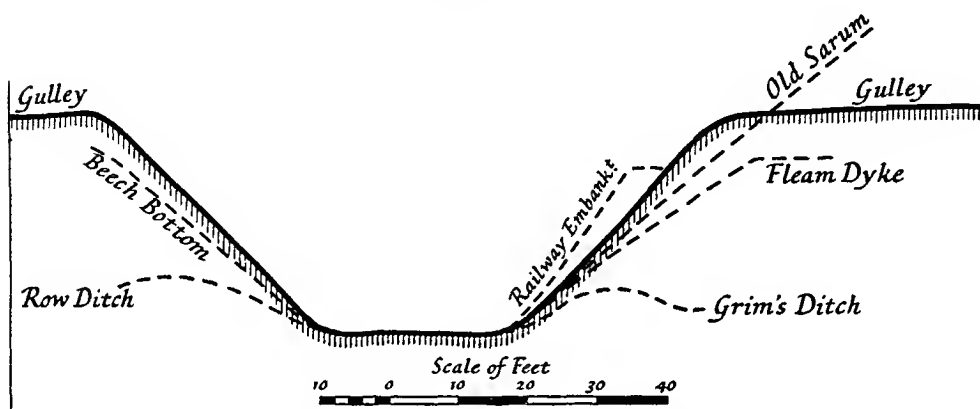


FIG. 1. SECTION OF NATURAL GULLEY, COMPARED WITH OTHER EARTHWORKS

however, and settle definitely whether cattle could or could not climb slopes similar to those found in British dykes, I had a herd driven across a natural gully 30 ft. deep, with a level floor at the bottom 30 ft. wide—which gave ample room to scatter sideways (PLATE III). The herd was attended by two men and a small boy, and they had no difficulty in driving it up the opposite slope. The section of this gully is given in FIG. 1, compared with five British dykes and a railway embankment :

- (1) Old Sarum, outer ditch on north side.
- (2) Fleam Dyke, near Bedford Gap. (Fox).
- (3) Grim's Ditch, near Spring Pond, Cranborne Chace (Sumner).
- (4) Row Ditch, Wilts. (Clay).
- (5) Beech Bottom. (V.C.H. Herts, I, 124).

DEFENCES AGAINST CATTLE-RAIDING

The natural gulley has a rough, crumbling surface, giving a bad foothold : the cattle crossed it without hesitation. A bare earthwork, especially if the soil is clay, is not so easy to climb when wet, though not impossible ; and it must be remembered that grass grows very quickly, and in a year or so a good covering of grass gives a fair foothold on any type of soil. A steep bank, therefore, unless continually kept free from grass, loses its only asset as a cattle-barrier—an asset which is never really formidable.

Cattle-raiding is a fine art, and is not undertaken haphazard. Among the Nandi of Kenya, young men combine in groups for the purpose, and for each raid one man is chosen as the leader. He selects his companions, who are never less than two, and usually three, so that a party of four may set out. Before raiding, they collect all the necessary information as to the position of the cattle-fold, houses, etc., and when actually at work, one man keeps watch, one man opens the fold and drives out the cattle, and the others head them off in the direction of retreat. If undetected, the cattle are driven to their destination in a roundabout way, taking what would seem to be an unnecessarily long course. This is to put pursuers off, and to cover their trail ; and unless caught close to the site of the theft, they are seldom taken while travelling, though cattle may be recovered after they have reached their destination. FIG. 2 shows two cattle-routes across the Uasin Gishu plateau, Kenya ; in both routes several rivers have to be forded, the largest (the Nzoia) being particularly nasty to cross. As will be seen, distance is no objection to people who have specialized in this occupation for centuries ; and though the Nandi are remarkably bad stock-farmers, they have undoubtedly a genius for driving cattle long distances in the shortest possible time. Anything in the nature of a dyke or gulley to be crossed presents no difficulty, for two of the party stationed in the bottom can easily prevent lateral scattering of the animals ; and if a swamp be encountered, a *détour* is made to get round it.

In East Africa, there is a definite raiding season, beginning about October, when the long rains are over. At this time of year the ground is dry, and gives a good foothold for cattle and men even on the most precipitous and rocky slopes ; ideal night conditions are obtained after full moon, when the moon rises about or after midnight, and there is enough light before moonrise to see without being conspicuous. And here I would point out that African ground conditions cannot be compared with those of Britain ; the African are much worse. For we have higher and steeper hills ; more and larger rocks ; a soil intolerably

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slippery when wet ; hundreds of acres of dense grass, often shoulder high even on steep hills ; and precipitous river-valleys up to 600 ft. deep, often with a slope of 1 in 1 ; many of the rivers, too, as well as small streams are quite unapproachable in most places unless you hack your way through solid undergrowth. Such conditions are unknown in Britain—even on the chalk.

The prevention of theft from a fenced cattle-enclosure is easier, of course, when the herdsmen sleep inside with their cattle. Some East African pastoral tribes (*e.g.* the Nandi) have a dead-hedge enclosure for cattle close to but separate from the dwelling huts ; others, like the Uasin Gishu Masai, build their huts inside the enclosure, as in FIG. 3, which shows a dead-hedge surrounding four huts with flat thatched roofs plastered with dung.⁵ The only exact British parallel to this that I know of is the Romano-British cattle-enclosure on Lowbury Hill, Berks, where a farm-yard enclosed by a flint wall about 4 ft. 6 ins. thick, with (apparently) pent-house roofs for the men, dates from perhaps A.D. 200.⁶ (FIG. 4). A stone wall is the ideal cattle-defence, as it cannot be broken down in a hurry ; but for modern savages it is too laborious, especially when they are continually on the move for grazing and water ; and in the stoneless districts of Britain it is naturally rare. Cattle must have been kept in many of the British earthworks, though there is little direct evidence ; there is, however, one stone-walled fort in Wales which has a cattle-tradition, and provides another parallel. *Caer Drewyn* in Merionethshire⁷ has an area of 10 acres, and has a subsidiary external enclosure of one acre on the NE side containing the sites of hut-circles ; and a tradition, going back at least to the 16th century, says that it was made by *Drewyn the Giant* as a cattle-fold for his sweetheart ; and a century later *Edward Lhuyd* described it as ' a round stone wall about an acre of ground where they kept their cattel in war-time '.⁸

When a cattle-enclosure is made of wood, still further protection is given by a pile of thorns and brushwood on the outside. This not

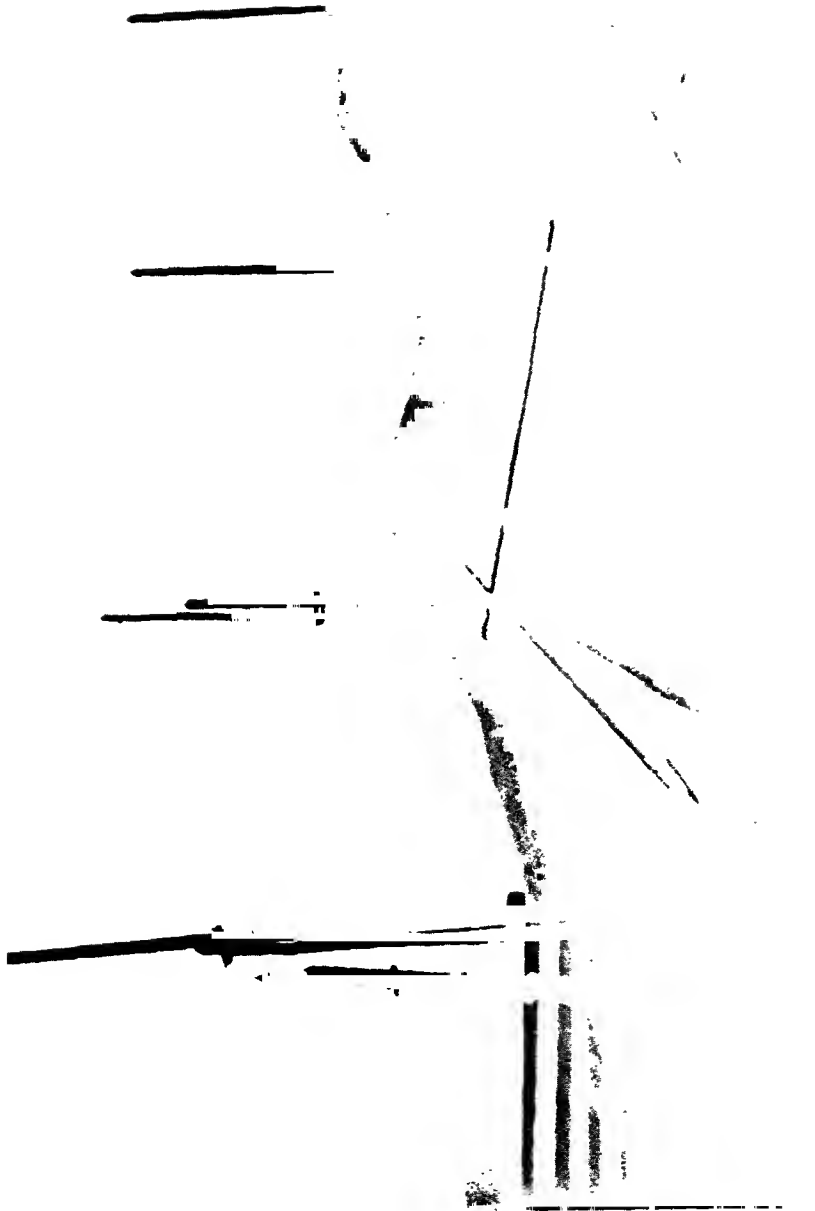
⁵ Pliny, describing the growth of the fig-tree (apparently in India) describes a live hedge used as a cattle-fold : ' intra saepem eam [ficum] aestivant pastores, opacam pariter et munitam vallo arboris (= with a ' vallum ' of tree), decora specie subter intuenti proculve fornicato (=arched) ambitu '. (N.H. XII, 11.)

⁶ D. Atkinson, *The Romano-British Site on Lowbury Hill*, 1916, pp. 4-7, 12, 28.

⁷ 6 in. o.s. Merioneth, 8 sw.

⁸ *Sion Dafydd Rhys*, c. 1600, Peniarth MSS. 118, fo. 829 ; *Lhuyd*, c. 1698, *Parochialia*, II, 44 ; Ancient Monuments Commission, Inv. of Merioneth, no. 27.

PLATE I



POST AND RAIL STOCKADE, HUCULSZYZNA, EASTERN CARPATHIANS, POLAND
Ph. Photo-Plat, Warsaw

PLATE II



'DEAD HEDGE' IN THE CARPATHIANS, ROUMANIA
Ph. O. G. S. Crawford

PLATE III



CATTLE BEING DRIVEN ACROSS A STEEP-SIDED NATURAL GULLEY, KENYA
Ph. G. W. B. Huntingford

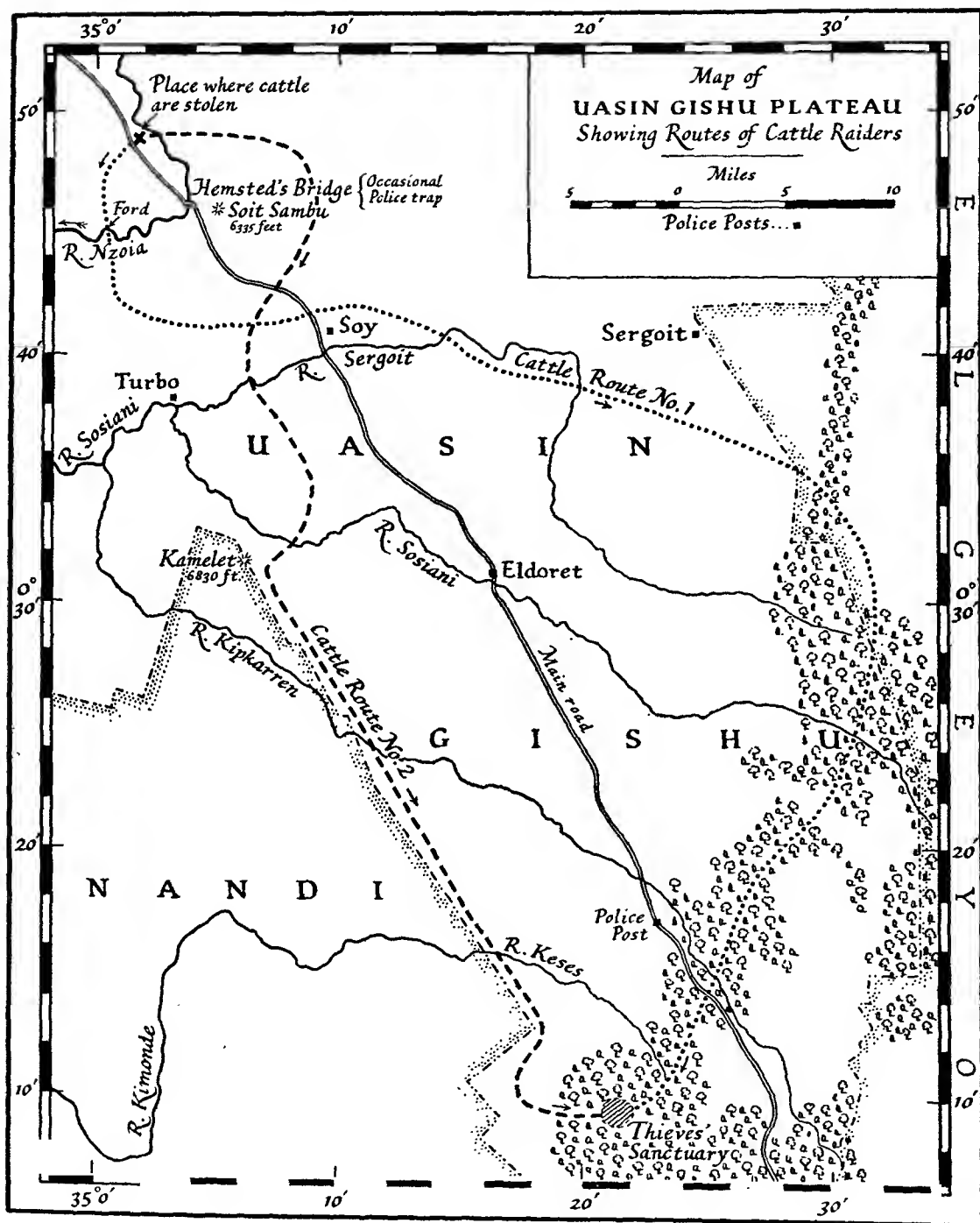


FIG. 2

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only hinders thieves, but keeps out wild beasts, for no animal, be it wolf or wild dog, likes a mass of thorns ; and if the pile be large enough, even a lion will normally refrain from jumping over. The worst animal enemy of the ancient stock-farmer in Britain was

that grey beast

the wolf of the weald,⁹

a dangerous pest corresponding to the wild dog (*Lycaeon pictus*) in Africa, and resembling it in fearlessness and lust for killing. In districts infested by such animals a pile of thorns is essential.¹⁰

This brings us to the crux of the whole question : is a plain ditch and bank a barrier to cattle ? And in view of the foregoing remarks, the answer can only be, no. We are then compelled to accept 'no fence, no defence' as an axiom in spite of the evidence, which shows that stockades have been found only in the following places :

1. Uffington Castle, Berks : along the top of the rampart. (Rev. J. Wilson in *Trans. Newbury F.C.*, 1872, vol. 1).

2. Caburn, Sussex : on the slope of the rampart, and perhaps not a stockade. (Pitt-Rivers in *Archaeologia*, XLVI, pp. 452 ff.)

3. Northfield Farm, Long Wittenham, Berks : a short length of stockade is marked on the plan of the excavations on this site. (Haverfield in *Proc. Soc. Ant.*, ser. 2, XVIII, 14).

4. Bran Ditch, Cambs. : a line of stakes between two parallel ditches. (*Earthworks Committee Report*, 1927, p. 24).

5. Durrington, Wilts : an 'egg-shaped earthwork in the field adjoining Woodhenge', with stockaded entrance. (E.C.R., 1928, p. 19).

6. Wilbury, Herts. : a La Tène I fort was preceded by a ditchless stockade. (ANTIQUITY, 1933, VII, 484).

7. Salisbury Plain : a short length of palisaded linear earthwork. (O.S. map 'Celtic Earthworks of Salisbury Plain', 1933, Old Sarum sheet, foreword p. 2, but not marked on the map ; fully described by Dr Stone, the discoverer, in *Wilts. Arch. Mag.* XLVI [June 1934], 450-3.¹¹

If an earthwork was intended to keep cattle in (and to protect them from wolves and men) it must have had some sort of fence ; and we

⁹ AS. Chronicle, sub. an. 938.

¹⁰ The wolf existed in a wild state in Britain in the 12th century (Giraldus Cambrensis, *Itinerarium Kambriae*, II, 10) ; and in Scotland as late as the 16th century (*Shakespeare's England*, I, 480).

¹¹ The question of wooden stockades in Britain is dealt with by Myres, Hawkes, and Stevens, in 'St. Catherine's Hill, Winchester' (*Proc. Hants F.C.*, 1930, XI, 67-71), to which I owe the reference for Caburn.

DEFENCES AGAINST CATTLE-RAIDING

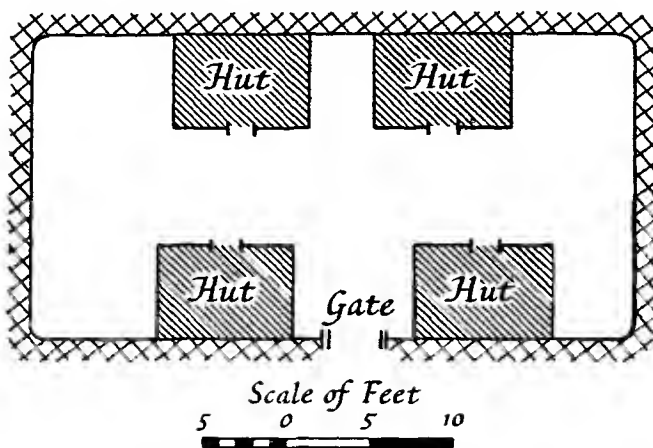


FIG. 3. PLAN OF ENCLOSURE FOR 20 HEAD OF CATTLE

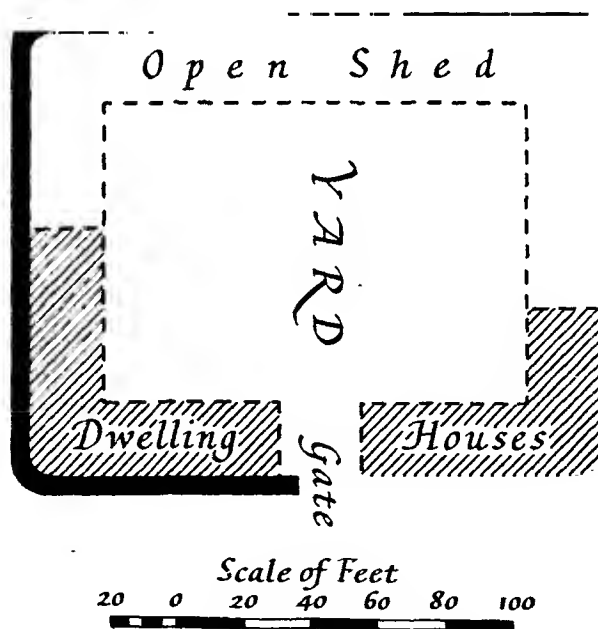


FIG. 4. PLAN OF CATTLE-ENCLOSURE, LOWBURY HILL, BERKS
WITH CONJECTURAL RESTORATION OF BUILDINGS

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must therefore assume that the fence was of the dead-hedge type, the holes for which, since they need not be deep, would leave no trace after the lapse of centuries. Such a fence would do well enough for a place where the herdsmen probably slept along with their cattle ; but for a long stretch of linear earthwork, it would be no bar to cattle-raiders, for they could easily tear it down, unless the earthwork was patrolled—and even then they would have opportunities at night. We must conclude that the stopping of cattle-raiders was no part, either intentional or incidental, of the functions of a linear earthwork, whatever those functions may have been.¹²

NOTE. I am not in the least convinced by Mr Huntingford's arguments. His natural gulley (PLATE III) with its ' rough, crumbling surface ' offers a far easier ascent and descent than the slopes of such a ditch as Beech Bottom or that revealed last summer at Maiden Castle, Dorset. I still maintain that it would be quite impossible for man or beast to climb the sides of big ditches dug in chalk or clay. Grass does not grow on steep chalk slopes, as any railway cutting shows : and even if the middle and lower slopes became covered with loose débris, there would still remain the bare uppermost section which, as any one who has climbed cliffs in his boyhood knows, often presents a final and insuperable obstacle to success.

PLATES I and II have been inserted by the Editor from his own collection, to illustrate Mr Huntingford's first two types of fence.

O.G.S.C.

¹² Cf. ' Wansdyke ', by Sir Charles Oman, in *Quarterly Review*, 1929, no. 502, pp. 290-300.

Some Thoughts on the Topography of Saxon London

by J. N. L. MYRES

IN the September number of *ANTIQUITY* (VIII, 290–302) Dr Wheeler analysed with characteristic brilliance the topographical and archaeological evidence for the relation of Roman and Saxon in Dark-Age London. He pointed out that the 330 acres enclosed by the Roman Walls were divided almost centrally by the Walbrook into two areas of rising ground, the eastern which we may term Cornhill, and the western Ludgate Hill. He showed that there is undeniable evidence epitomized in the position of the central basilica and of London Bridge to prove that the eastern of these was the nucleus of the Roman City, and that the inclusion of the western within the walls was intended ‘to provide generously for a development which only in part materialized’. He noted further that the evidence for the earliest Saxon settlement within the walls pointed with hardly less emphasis to their preference for the western area, where the foundation of St. Paul’s, the less certain suggestion of early church dedications, the traditional site of the Royal Palace, the certain position of the Folk Moot, and the more frequent occurrence of small objects of the early Saxon period combine to indicate the focus of their settlement. So far we may tread securely in his footsteps; we may agree with his summary of the contrast—‘Roman London began on the Hill above London Bridge and spread westwards; Saxon London emerged on the western hilltop and spread eastwards’.

But he began his paper with an assumption, which the topographical and archaeological argument we have summarized, was intended to strengthen into a historical fact. ‘I propose to assume’, he wrote, ‘that in some sort—if only as a sub-Roman slum—London lasted on through the Dark Ages; an urban anachronism, perhaps . . . but none the less an entity sufficiently living to transmit something of the Roman heritage to later times’. And he ends by claiming that during the 6th and 7th centuries ‘the natural division of the city became, for a time, a cultural division [between sub-Roman and Saxon] also’. It is the purpose of this note to ask whether the facts adduced

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in the course of the paper make this any less an assumption at the end than it was at the beginning.

Why was the nucleus of Saxon London on the western rather than on the eastern hill? Dr Wheeler would presumably answer: 'Because the eastern was still occupied by the shrunken but still living entity on the Roman City'. He toys even with the idea of a continuous Christian cult in St. Peter's-on-Cornhill, standing as it does on the site of the Roman basilica and perhaps perpetuating 'a continuous tradition from the time when Christianity first became the official religion of Roman London, with an official altar in the old municipal shrine'. But there is surely a much simpler explanation of the Saxon preference for the western area. It was not the presence of sub-Roman slum-dwellers on Cornhill which frightened them away: it was the much tougher obstacle of a wilderness of bricks, and mortar, and concrete that daunted their town-shy minds. The eastern hill was, as we know from Dr Wheeler, a built-up area: it had been thickly packed with great public buildings, temples, warehouses and tenements. Many of them were by now rat-ridden and dangerous ruins, the abode of the unfamiliar ghosts of an alien culture. No Saxon would willingly live in the peril of falling walls and the stench of blocked drains that he did not know how to clean. But west of the Walbrook, to quote Dr Wheeler, 'there is some evidence . . . that the extension of Londinium . . . was never very closely filled with buildings'. If it was necessary to settle within the walls at all, which was in itself an unusual concession to the importance of London's position, there could be no question of their choice of a site. It was in the open spaces which had once been the gardens and orchards of the west-end villas that they preferred to make their mud and wattle huts. There is nothing surprising in the choice at all: it accords perfectly with all that we know of the non-urban atmosphere of pagan Anglo-Saxon minds. And it has no necessary relevance to the question of Romano-British survival.

But what about St. Peter's-on-Cornhill? There is fifteenth-century evidence, perhaps based upon the dubious authority of a twelfth-century Lancashire monk, that St. Peter's had been an Archbishop's see for four hundred years before the coming of St. Augustine. Dr Wheeler thinks that this story is 'unlikely to have arisen subsequently to the establishment of the episcopal see at St. Paul's'. Now he has himself quoted with approval Dr Page's description of late Saxon London as a *cité* surrounding the Cathedral on the west and a *bourg* with its merchant population on the east. But it was precisely the

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predominance of St. Paul's in the western *cité* which is likely to have given rise to such claims on behalf of the commercial interests in the *bourg* east of Walbrook for the antiquity of their own central and admittedly very early church. We are apt to forget the sudden development of racial antiquarianism which followed the Norman Conquest. The greater religious communities, of which St. Paul's was not the least, became after the work of Lanfranc and Anselm a great instrument of the cultural conquest of Saxon flexibility by the rigidities of Norman feudalism. What more natural retort for the burghers, in their passionate maintenance of liberties guaranteed them by the Conqueror, than to push back parochial St. Peter's to King Lucius, four hundred years before Augustine the Monk, and to claim for it a mythical archiepiscopacy, the only possible dignity which could surpass the prestige of the Cathedral Monastery. It is not at all surprising that we first hear of this tale in the twelfth century, for that is just the period when such tales were most in demand. And if we are asked for an alternative explanation of the position, dedication, and undoubted antiquity of St. Peter's-on-Cornhill we would reply that it was the deliberate policy of Augustine and the Papal missionaries to re-Romanize Britain by planting their churches in the old urban centres wherever that was feasible. And if in London they found it necessary to compromise by setting St. Paul's in that part of the town where already there was a nucleus of East Saxon settlers, yet they could hardly be expected to resist the temptation of building a St. Peter's in the ruins of the Roman basilica on the deserted side of the stream. The two dedications suggest in fact very strongly a single plan, and that not only probably but almost inevitably the work of Papal missionaries in what was after all intended to become one of the two metropolitan sees of converted England. Is it perhaps too fanciful to see in the placing of St. Peter's on the eastern hill a hint, so to speak, to the East Saxons to follow the Prince of the Apostles back to the ancient centre of London's earlier Roman culture? That the East Saxons did not take the hint is symbolic of much in London's—and in England's—history.¹

¹ Bede *H. E.* II, 3, mentions, it is true, only the building of St. Paul's by the missionaries, for, by his time, the traditional supremacy of that church was already firmly established, and it is characteristic of his historical method to give no unnecessary information. It is far more significant that he says nothing whatever of any sub-Roman population in London when Mellitus arrived. In the chequered history of the see during the seventh century such an element, if it had existed, would surely have played a noticeable part.

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But if it be admitted that the facts set out by Dr Wheeler are reasonably intelligible without the postulate of a surviving Romano-British population round Cornhill, there is at least one piece of positive evidence which makes any such survival extremely improbable. And that is the well-worn, but none the less powerful argument from the medieval street-plan. There is nothing more tenacious and ineradicable in a continuously inhabited urban area, than the main lay-out of its streets. Not even a Great Fire, such as that of 1666, will suffice to alter the traditional boundaries of contiguous properties which depend upon the maintenance of traditional lines of communication. If it was possible to argue that the chaotic street plan of medieval London east of Walbrook bore any significant resemblance to the carefully surveyed *insulae* of the Roman City, it would be extremely unwise to deny the probability of continuous occupation in some form or another. But in fact one cannot. And while it may not be difficult, in Dr Wheeler's picturesque conception, 'to imagine a 5th- or 6th-century Londoner muttering "Civis Romanus sum" as he put his stair-balusters on the kitchen fire', it is too great a strain on our credulity to imagine him and his fellows deliberately converting a grid-iron street plan into a chaos of curvilinear lanes in a misguided effort to conform with the reviving canons of Celtic Art. Such changes as the street plan of Roman London has undergone are only explicable by a period of abandonment—not necessarily absolute—but sufficient to allow of so great an obstruction of lines of communication by fallen masonry, blocked and bursting drainage systems, and the natural growth of vegetation, as to make them unrecognizable as such, when lines of human communication are again required. And such a situation is incompatible to my mind with the survival of 'an entity sufficiently living to transmit something of the Roman heritage to later times'.

Dr Wheeler does not tell us in this paper what he thinks that 'something' was. But if we turn to the July number of the *Antiquaries Journal*,² we shall find an indication of his line of thought. He there argues that the existence of the well-known Grim's Ditches in the Chilterns and in Middlesex, and of a similar earthwork in the valley of the Cray is only explicable on the assumption that there was a power in the Thames basin in the 5th and 6th centuries A.D. strong enough to prevent the influx from north, west and east of settlers anxious for

² *Ant. Journ.* XIV, 254.

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good agricultural land. And that power can only be 'a dark age London still vital and watchful of her territorial interests'. And the result of such watchfulness was to hand on to twelfth-century Londoners of FitzStephen's time rights of hunting over a considerable area of the home counties. Here is something of the Roman heritage indeed.

Now I am not concerned at present to criticize this interpretation of the function of the Grim's ditches.³ But it may be worth while to set the conception of sub-Roman London which Dr Wheeler has based on them side by side with the impression left by his study of the Topography of London itself. On the one hand we have the successful assertion of rights over districts as far distant as Berkhamstead and Wallingford; and on the other an inability even to prevent the settlement of Saxons within the Roman walls of London itself. One picture shows us 'an enduring London capable from the outset of controlling the Saxon settlement of the London basin';⁴ the other 'a sub-Roman slum', precariously crouching behind the insecure frontier of the Walbrook. And if it be argued that the two pictures are after all not intended to be seen simultaneously, but one after the other, and that there is plenty of time between 410 and 604 for us to admire them both, I should heartily agree. There is plenty of time for them both even before 500: and I would venture to add a third to while away the century or so before the coming of St. Augustine—a picture that will include the vigorous exploitation of the Thames valley and its tributaries by

³ One obvious difficulty is to visualize a political situation in which London was strong enough to defend her territorial interests more than thirty miles away, yet so weak as to allow the intruders to construct their own frontiers: for it will be remembered that except for the Berkshire Grim's ditch, whose behaviour suggests that it may belong to a totally different chronological horizon, these earthworks all face towards London. If the Londoners were strong enough to insist on such lines being drawn, they were strong enough to draw them themselves. And was there any possible advantage which the Saxons could obtain by the labour? It is not the aggressor but the defender who has need of frontier defence.

⁴ This phrase can only mean that Dr Wheeler regards the undoubted early Saxon settlement of the Thames valley and its tributaries, evidenced by, for example, the partly cremation cemeteries of Croydon, Hackbridge, Shepperton, Aston and Reading, all of which must be within his London *Territorium*, as the outcome of negotiation and agreement with the Roman Londoners. It is difficult to see why they were so anxious to defend their rights in the far-away Chilterns while surrendering the control of much closer and more valuable land on their best line of communication—the river. I mention only the cremation cemeteries, because while cremation is *in itself* no proof of early date, its occurrence in an area so Romanized as the middle Thames valley is hardly explicable in any other way. Some of the inhumations here may be early too.

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Saxons unhampered by any restrictions from Roman London : and some very Still Life indeed upon Cornhill.

To sum up—I have ventured to suggest that there is nothing in the very interesting facts which Dr Wheeler has yet published⁵ on the Topography of Saxon London to necessitate or even strongly to suggest a survival of the Romano-British population in the eastern part of the City ; that there are certain factors such as the street plan which are very difficult to reconcile with continuity of occupation ; that his argument for continuity is really based upon his interpretation of the Grim's ditches ; that this interpretation if true points to situation in the Thames basin in the Pagan period inconsistent with his own picture of the relation of Saxon and Briton in London itself ; and that if to escape this dilemma we place ' the Grim's Ditch Period ' very early before the establishment of any Saxon settlement in London, then the reason for demanding continuity at all has disappeared.

There has been in recent years a very general movement in archaeological opinion on the relation of Briton and Saxon in these dark centuries. Rightly or wrongly we are nearly all much stronger ' survivalists ' than was thought at all proper even fifteen years ago. There is the greater necessity for very close examination of the arguments which have led us to our present position. We must beware lest our new course becomes a precipitate stampede.

⁵ His forthcoming publication on *London and the Saxons* is of course most eagerly awaited.

Mr Myres on Saxon London : a reply

by R. E. M. WHEELER

THIS is where Mr Myres and I don our cardboard armour, rattle our wooden sabres, and join battle to the death or tea-time.

Let me parry blow by blow, and, first, that one about the *street-plan*. I give that precedence because Mr Myres is (relatively) so serious about it. He regards the 'chaos of curvilinear lanes' which is the medieval street-plan of London as, above all, a 'piece of positive evidence' which makes any survival of Roman London through the Dark Ages 'extremely improbable'. As Mr Myres well knows, this argument goes back through William Page to Noah, and the only surprising thing about it is that Mr Myres should still find himself using it in this year of grace. The reply, in part at least, is almost equally ancient, but has never perhaps been developed as fully as the argument appears to deserve.

The essential answer to the question, 'What about the street-plan of London?', is to ask another question, 'What about the street-plan of Rome?' As a seasoned historian, Mr Myres is aware that, A.U.C., Rome has been abandoned 'to desolate and dreary solitude' for scarcely more than forty days all-told. And yet every tourist knows the lengths of destruction to which political antiquarianism has now to go in order to recover a small fragment of the classical street-system from the 'chaos' of the later plan. In Rome continuity of occupation has been consistent with an almost complete abandonment of 'the carefully surveyed *insulae* of the Roman city', and in Rome therefore may be found the absolute answer to the street-argument against continuity in London.¹

This answer is in reality emphasized by the seeming paradox that, in certain cities where a period of abandonment is likely to have occurred, the main lines of the Roman plan have nevertheless been maintained.

¹ The curious may find a convenient diagrammatic exposition of this point in Gordon Home, *Roman London* (1926), p. 151.

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Thus Bath, which, as the Saxon poet tells us, was in the eighth century a ruin wherein death had 'destroyed all', has to this day almost certainly retained the lines of its principal Roman streets.

The explanation of the paradox seems to me to be this. It was not mere negative desolation that broke up the Roman street-plan of London. Rather was it, as at Rome, the more positive disrupting influence of a continuous and comparatively dense occupation through a period of indifferent civic discipline. Had the well-built Roman Londinium in fact been abandoned and so, in a sense, petrified during the most chaotic century of the sub-Roman period, only to be reoccupied at the end of the sixth century by a civilized Saxon régime and revitalized by new contacts with Rome, then might we legitimately have expected to find some explicit recognition of the Roman plan in the Saxon and medieval city. It is difficult not to regard the absence of such recognition as evidence rather *against* than for a lapse of this kind, with the implication that the beginnings of the quaintly distorted plan of medieval London should be referred back to that sub-Roman slum wherewith I have been led to identify the London of the Dark Ages.

There is indeed slight evidence that, already before the end of official Roman rule in Britain, the symmetrical planning characteristic of Roman cities in their prime had begun to suffer modification. For example, in the small country-town of Caerwent, encroachments upon the main streets were numerous, and a whole side-street was actually blocked by the construction of a ramshackle amphitheatre. But in the country-towns, sited, as many of them were, astride main roads, a special factor conspired with the essential durability of Roman masonry to maintain at least a nucleus of the Roman street-plan. That factor was through-traffic which, however variable in bulk, followed down the ages the Roman main-roads both across the countryside and through the towns (however derelict) from gate to opposite gate. Thus in some degree have the axial streets of outlandish Roman fortresses such as Chester, or, as we have already observed, of once-derelict towns such as Bath, been preserved as the axes also of the modern street-plan. But the case of London was different. London was never a mere incident on a through-route. Even today, the number of persons who merely pass through London, as through so much streetage or railway-tunnel, must be relatively small. London is, by virtue of her geographical position and her size, a focus, a distributing centre, a starting-point, but not a roadside city. That is, of course, why there is no real street-axis in the city of London, and why it has been necessary

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in modern times, with the vast expansion of London, to impose new main streets—King William Street, Queen Victoria Street—upon the ancient plan. In the words of an ex-Minister of Transport : ‘ The biggest traffic problem of London is not how to get out of London, but how to get through it ’.²

Two factors, then—the dislocation which might reasonably be expected at the hands of an ill-controlled, impoverished and predatory Dark-Age population, and the absence of the corrective stimulus of through-traffic—may be urged in explanation of the disharmony of the Roman and medieval street-plans of London. But the analogy of Rome teaches us sufficiently to beware of using that disharmony as evidence of discontinuity, and the argument to that effect may safely be dismissed as irrelevant.

Other points raised by Mr Myres require less discussion. The probability that the western hill was less encumbered by Roman buildings than the eastern was doubtless a contributory cause in the concentration of early Saxon settlement upon that hill, and I have in point of fact implied this on p. 301 (read in conjunction with p. 292) of my paper. But the suggestion that St. Peter’s Cornhill was not, as the medieval citizens believed, a Roman survival, but rather an unrecorded foundation of the Gregorian mission, designed to balance the new St. Paul’s on the opposite hill, carries guesswork further than even I am prepared to go. The ecclesiastical antiquarianism of the twelfth and thirteenth centuries is of course notorious, but I can find no hint in the early medieval history of London that there was, as between the two halves of the city, any such violent antagonism as is likely to have prompted so extravagant a claim *de novo* on the part of the denizens of Cornhill. In this absence of any adequate motive for imposture, I prefer to pin my faith to a seemingly established twelfth-century tradition—a tradition so firmly established, indeed, that it was known even to a remote Lancashire monk—than to an entirely unattached guess of the twentieth century. If a historical environment be required for the complementary dedications on the twin hills, it is easy enough to conjecture that the Romano-British St. Peter’s derived its dedication from that of the premier church of Rome itself, and that when the Gregorian mission came to establish its new cathedral on Ludgate Hill it chose the dedication to St. Paul from an instinctive sense of harmony.

² Mr Herbert Morrison, as reported in *The Observer*, 4 February 1934.

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Then Mr Myres turns aside from the strait and narrow path of my ANTIQUITY article and entangles himself in a recent paper of mine on the Grim's Ditches of Bucks, etc. In that paper I tried to set forth certain quite explicit reasons for *not* ascribing these ditch-systems to any period other than the early post-Roman phase. Those reasons hold the (otherwise vacant) field until they are countered by equally explicit point-to-point argument. Generalities as to whether they do or do not fit in with any premised political situation in London or the Thames valley are of no value, since we have not, as Mr Myres and I must equally admit, the foggiest notion from historical sources what that political situation in the fifth and sixth centuries really was. If my arguments, based mainly on a study of geological and geographical environment, are sound, then we may legitimately amuse ourselves afterwards by inventing some sort of political situation to fit them. But before doing so let us, for the love of Mike, get rid of some of the notions which here appear to cloud Mr Myres's usual clarity of thought. He complains, in particular, of the difficulty of visualizing 'a political situation in which London was strong enough to defend her territorial interests more than thirty miles away, yet so weak as to allow the intruders to construct their own frontiers'. But that is exactly what a generation of field-archaeology and two thousand years of history have taught us to expect! Frontier-dykes were normally put up by the intruder (in this case, *ex hypothesi*, the Saxons from the north) to define conquests or claims: witness Offa's Dyke put up *not* by the brow-beaten Welsh but by the victorious Mercians—not to mention Hadrian's Wall, which has never, I believe, been ascribed seriously to the Picts and Scots. And the word 'defend' in Mr Myres's sentence has an ominous ring about it, not lessened by the further statement that 'it is not the aggressor but the defender who has need of frontier defence'. I strongly (but perhaps wrongly) suspect that Mr Myres is here still imbued subconsciously with the studious strategy of the conventional histories. Does he seriously imagine that these interminable dykes were really intended for defence—that the hundred miles of Offa's Dyke, for example, really protected an otherwise vulnerable Mercia? Of course they didn't, and of course Mr Myres knows they didn't. The dykes must have impeded cattle-driving, but otherwise they could no more prevent incursion than the white line can prevent a determined motorist from taking a corner on the wrong side. They were a simple and obvious expression of territorial adjustment in an illiterate age, and as such were laid out normally (not always without concession) by the

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more active and aggressive of the negotiating parties. They were not, in any significant sense, defensive battlements.

And then, again, this slum-business. When I speak of my sub-Roman London as a 'slum' I am comparing it mentally, not with the condition of the contemporary Saxon settlements (which must have been indescribable), but with the London of the best Roman period ; say, the second century A.D. In the sixth century, even a tumble-down London can easily have been still a triton among the minnows of that squalid age. It had walls and buildings stout enough to turn the pick of the modern builder, it had a tradition strong enough to fashion the policy of Pope Gregory, and, if its plumbing was by then somewhat defective, history shows abundantly that sovereignty is not conditioned by h. and c. I need not labour this point, but I admit that I should have defined my phraseology more clearly.

Nor need I prolong this over-long reply by entering upon a discussion of the vexed question of the Saxon cemeteries, save for one point. All that we know of the social and political conditions of the migration-period goes to show that cultures and societies co-habited at this time in a curiously casual manner which is often devoid of serious or lasting political conflict. Examples from fifth-century Gaul will leap to Mr Myres's mind ; and it is somewhat on the lines of fifth-century Gaul that I find it easiest to reconstruct a picture of London and Kent about the year 500. The temporary or even enduring presence of small communities of Teutonic farmers, particularly in the vicinity of the arterial river, is entirely in this picture, and does not necessarily carry with it big political implications. Politics and strategy are the curse of the older historians of early Britain, and it is as necessary as it is difficult for us to lay the curse. Mr Myres, by training a historian and by inclination also an archaeologist, is, above all, equipped for the task of reshaping this tradition, and it is to be hoped that he will, before long, substitute for negative criticism a positive and constructive study of a period which so badly needs him. . . . But now it's tea-time.

Ur Excavations: a review*

by E. A. SPEISER

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IN recent years Ur has figured prominently and often as an important witness of the Great Flood of prehistoric times. But whatever may have been the cause and extent of that particular upheaval, it appears that the ancient city perished, paradoxically enough, for lack of water. A sudden shift in the course of the Euphrates probably doomed to desiccation the strip of land on which Ur had risen to become at length a powerful royal centre. That fitful whim of a lazy river may be placed at some period near the end of the pre-Christian era. By that time, however, Ur had endured for perhaps as long as five millennia. Nothing short of a natural catastrophe, it would appear, could bring to a close a career of such heroic proportions.

But today our interest centres neither on the foundation of the city nor yet on the precise manner of its destruction and abandonment. Both events pose problems that call for far too much speculation. To the student of antiquity the known facts of the cultural and political history of Ur will be no less fascinating and absorbing. That so much information is now available is due primarily to the work of the archaeological expedition of the British Museum and the Museum of the University of Pennsylvania, which has just concluded its twelfth season of excavation at Ur under the direction of Dr Woolley. Preliminary reports of seasonal progress are available in the vivid annual reports of the Director. In addition we have the definitive account of the results obtained at al 'Ubaid (*Ur Excavations*, vol. I), and now comes the splendid publication of the finds from the 'Royal Cemetery'.

* *Ur Excavations*, vol. II. The Royal Cemetery. A report on the Predynastic and Sargonic graves excavated between 1926 and 1931. By C. Leonard Woolley.

Publications of the joint expedition of the British Museum and the Museum of the University of Pennsylvania to Mesopotamia. Part I, text pp. xx, 604, with 83 drawings in text; Part II, 274 plates of which 37 are in full colour. 1934. (British Museum Agents, £4 4s).

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The subsequent volumes of this series will be awaited with the keenest interest.

There are two main reasons why the early cemeteries of Ur are of outstanding importance. One is the nature of the finds as such, and the other lies in their strategic chronological significance. To consider first the intrinsic value of the objects, they are almost unending in their variety, while generally excellent and at times extraordinary in quality. No description of a few selected specimens can convey a remotely adequate idea of the wealth of the entire yield. In short, the antiquities should be seen in the museums of Baghdad, London, and Philadelphia, if they are to be appreciated fully. The next best thing is to study them from the fine colour plates prepared by Miss Louise Baker, and from the descriptive account of the discoverer. But Woolley has furnished more than merely a competent commentary to his finds. His happy style enables the reader to breathe some of the excitement attendant upon the various discoveries and to appreciate the skill and the infinite patience required in the exhumation, study, and the ultimate preservation of each piece. In all these departments the author is an acknowledged master. Contributions by Mrs Woolley, Sir Arthur Keith, Rev. E. R. Burrows, Dr L. Legrain and Dr H. J. Plenderleith, help to make the publication a really representative one.

In addition to supplying us with a remarkably rich and complete picture of contemporary civilization, the finds from the Ur cemeteries help to mark an epoch which is scarcely surpassed in significance by any other in the long cultural history of mankind. For whatever may be the absolute date of the cemeteries, their relative chronological position is clear enough. The period from which they date marks the end of the prehistoric or archaic stage and the beginning of history proper. This is not simply an arbitrary distinction based solely upon our own knowledge of the times, the dividing line receding as our information increases, but rather a milestone in the life of mankind which is not likely to suffer henceforth any serious shifts. It is becoming increasingly plain that the realization of the potentialities of writing and metallurgy, as opposed to casual experiments along these lines, signifies the introduction of the historical age. Now, on evidence from a series of sites in the Near East, both these factors emerge from the experimental stage at a time corresponding to that of the early Ur cemeteries. The tempo of life has been appreciably quickened by these developments, an industrial and culture revolution that has made man literate and metal-conscious. This contrast between the prehistoric

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and the early historical deposits is perfectly evident to any excavator who has dealt with mounds in which both stages are represented ; it is proclaimed by the very nature of the débris. In this light the finds under discussion, astounding as they are in their own right, assume an enormous contextual significance. In terms of relative chronology they mark the apex of the life-curve of Ur. For the length of the occupations that follow is neatly balanced by the number and depth of the preceding archaic strata.

Thus far our reaction to the handsome publication by Woolley has been one of warm appreciation. Such an attitude is amply justified by the wealth of unusual finds, expertly reclaimed and very well presented. It is not until we come to the author's interpretations that we find room for the exercise of critical tendencies. Sooner or later in the account of his results the archaeologist is called upon to reassemble his established facts into a picture of contemporary life against the political and ethnic background of the age and area in question. Probabilities become intricately interwoven with personal opinions, and the circumstance that such opinions may be entirely consistent with logic fails to invalidate or render improbable views that may be at variance with the author's conclusions. In this respect the present publication is intensely stimulating.

The very title of the work lends itself to legitimate dispute : was the cemetery a burial ground of royalty ? Woolley is well aware of the problem and he takes it up at considerable length in chapter III. It is true that Mes-kalam-dug bears the title *lugal* 'king' and that Shub-ad is termed *nin* 'queen, princess'. But the extant king-lists know nothing of Mes-kalam-dug and his group. Woolley would get around this difficulty by pointing out that the rulers in question antedate the first historical dynasty of Ur. Since this assumption merely postpones the issue without settling it all, the author is forced at length to suggest (p. 218) that the interred dignitaries were not independent kings, but rather vassals subject to the rulers of the First Dynasty of Erech. This is very much of a *tour de force* because the Erech dynasty is as plainly mythical as the First Dynasty of Ur is historical. For whereas the members of the latter are assigned normal regnal terms by the king-lists, the Erech fathers are semi-divine figures boasting life-spans of astronomical proportions. Then there is the difficulty arising from the abundance of human sacrifice in connexion with the principal Ur burials. In the mass of available written documents from Sumer there is nothing suggestive of such a practice following the death of a king.

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On the other hand, there is much to support the view of Sidney Smith, Fr. Böhl, and lately also of Frankfort (cf. *Iraq*, I, 12, note 3) that the deaths resulted from ceremonies in connexion with the Sacred Marriage ritual. The principal occupant of a tomb would thus be not a king but a priest or a priestess, the attendants representing victims sacrificed to and in the name of the god of fertility. This picture is wholly in harmony with all that we know about the spread and the popularity of such fertility cults. Without a powerful religious element of this sort the pretty picture which Woolley has drawn of the groups advancing in rapture to a voluntary death cannot but strike the reader as unduly fantastic.

Next comes the question of the date of the tombs. Woolley clings tenaciously to his original view that the earliest burials go back to 3500 B.C. The elusive absolute date need not concern us at present. What matters just now is the author's insistence that the tombs antedate the First Dynasty of Ur by as many as four and five centuries in some cases. To this theory we are unable to subscribe. As is well known, some scholars have assigned to the burials a date later than that of the First Dynasty, primarily on stylistic grounds. We are citing this rival hypothesis in order to indicate that stylistic arguments based on a comparison of the cemetery-finds with material from other Sumerian sites are not necessarily in favour of an extremely early date for the tombs. To be sure, the German school which sponsors the late date may have gone to the other extreme. At all events, it is difficult to escape the conviction that the Ur burials belong to a period closely linked to that of the First Dynasty. It should be added that at Erech, Tell Asmar, Tell Billa, and Tepe Gawra, in all of which early dynastic deposits have recently been unearthed, analogues of both the cemetery and the First Dynasty finds have been discovered side by side. Mes-kalam-dug, Woolley argues, is not included with the rulers of the First Dynasty. If that dignitary was a king, he must represent therefore an earlier dynasty, since a later historical period is out of the question. That may be so if the burials actually represent royal tombs. But if the Sacred Marriage hypothesis is accepted, the chronological difficulty disappears automatically. If an approximate absolute date is required, 3000 B.C. is as high as is necessary to go. There remain certain problems of stratigraphy, but they are not all-important in the case of burials.

In a chapter on 'General Results' (xxii) Woolley pays a glowing tribute to Sumerian civilization. The sum of achievements of that talented and ever-mysterious people cannot easily be exaggerated, but

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it is possible nevertheless to overstate some details. The author says that 'to the Sumerians goes the credit for having worked out all the basic architectural forms in use today' (p. 393). Has he taken into account the material from Gawra VIII-X which is certainly non-Sumerian and predynastic? The phrase 'if the al-'Ubaid people are, as they seem to be, Sumerian' (p. 398) is somewhat alarming in view of Woolley's earlier and repeated protestations that they were not of that group. A change of views as radical as in this instance should not be expressed without adequate supporting arguments.

Here and there the author is quite inconsistent. A glaring example is furnished by his discussion of Shub-ad's head-dress. In commenting on the alternative rearrangement proposed by Dr Legrain, Woolley objects to the use of Third-Dynasty material for the reconstruction of 'Royal Cemetery' ornaments, although elsewhere he makes frequent use of the argument from Sumerian and Mesopotamian conservatism (we fail to see where Mesopotamian civilization was so abnormally conservative).

A number of details could be argued either way. There is no justification, however, for giving the name of the Lagash ruler as Ur-Nina; the correct form Ur-Nanshe has been known for several years.

In conclusion I would point out that many of the photographs are not up to the standard of the rest of the work. This is not due to faulty reproduction, for the negatives that I have been able to compare are much poorer than the prints. Few expeditions have at their command resources sufficient for an all-round expert staff. But after Woolley's splendid work had attracted its due share of attention, the Director should have procured a competent photographer. Lastly, the binding of the volumes is inexcusably flimsy. A very small additional outlay would have ensured for these books the type of cover that they so richly deserve.

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HITTITE SCRIPTS

The following note as to the progress of decipherment of Hittite hieroglyphs, written by Professor W. F. Albright for *The Bulletin* of the American Schools of Oriental Research, April 1934, is reprinted by permission of the Editor of the Bulletin :—

‘ The history of the decipherment of the ancient oriental scripts and languages began in 1802, when the first successful efforts to solve the mystery of Egyptian hieroglyphics and Persian cuneiform were made. The decisive stage in the decipherment of Egyptian came in 1822, with Champollion’s famous letter to M. Dacier, and that of Assyro-Babylonian followed in 1846–1851, with the work of Hincks and Rawlinson. Meanwhile the decipherment of Phoenician had been brought to a successful conclusion in 1837 by Gesenius, and the decipherment of South Arabian was begun about the same time by Rödiger. Since those heroic decades many other scripts and varieties of previously known script have been successfully interpreted, and our knowledge of the numerous languages and dialects which were written in them has steadily increased. Yet the day of diminishing returns has not yet come, and new scripts are being discovered more rapidly than those already known can be deciphered. In Byblos, for instance, three new scripts have been discovered during the past few years ; none of them has yet been read. The discovery of North-Canaanite cuneiform* in 1929 and its dramatic decipherment in 1931 are familiar.

‘ During the middle decades of the past century a number of inscriptions in strange hieroglyphic characters were discovered in southern Asia Minor and northern Syria. The late A. H. Sayce began their decipherment in 1877, calling them “ Hamathite ” at first, and later “ Hittite ”—a brilliant guess which has proved quite correct (using the term in the same way as it is used in the Bible and the contemporary Assyrian inscriptions). Sayce’s efforts at decipherment were not,

* See ANTIQUITY, II, 87–8; III, 350; IV, 464; V, 114, 245, 405–14.

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however, attended with enough success to convince other scholars. Nor were those of his successors, Ménant, Jensen, Six, Peiser, Campbell Thompson, Cowley, Frank, and others, productive of more concrete results. Between them these scholars were able to accumulate a good many correct ideas, but it was not possible to say which idea was right and which was wrong. The difficulties in the way of successful decipherment appeared to be so great that Sayce finally concluded that several different languages were employed in the Hittite hieroglyphic inscriptions, while Jensen gave up his own decipherment, adopting a wholly new view, and considering the outlook for solution of the puzzle as practically hopeless.

‘Meanwhile the cuneiform Hittite tablets discovered by Winckler at Boghazköi had been deciphered by Hrozný of Prague in 1915, and this scholar, ably seconded by Forrer, Friedrich, Götze, Sommer, and others, was able by the year 1928 to interpret these texts in detail, and to work out complete grammatical and lexicographic systems. Several languages were discovered, Nasian or Nesian (in which nearly all the tablets were written), Luyyan, Hurrian, Hattic, Palaic. The new appreciation of the complex linguistic situation then existing in Asia Minor, made the prospects of deciphering the hieroglyphic inscriptions more problematical than ever.

‘In 1928 a new period began, that of successful decipherment of these enigmatic texts. In that year Meriggi read a paper (published in 1930) on the subject before the Hamburg Orientalistentag, in which he applied a more rigorous method to the task than had hitherto been employed, and succeeded in explaining several groups of characters as genealogical series of kings. Shortly before, the writer had finally succeeded in giving what seems to be the correct reading of the cuneiform inscription of the bilingual “boss of Tarkondemos,” which he read as “Tarqumuwa king of the land of the city of Mera” (previously read *Tarqutimme*, *Tarriqtimme*, *Tarquwasheme*, etc., and *Erme*, *Mê*, *Meya*, *Metan*, etc.). This reading, which has since been accepted by practically all competent scholars, was adopted in part (later entirely) by Meriggi, and furnished him a new *point d’appui*.

‘In 1931 Forrer and Gelb presented new, independent systems of decipherment at the Leyden Congress of Orientalists; both were published within the following year, and gave a great impetus to work in the field. Meanwhile, in 1930, the writer had established the existence of an important Anatolian goddess, Kubaba or Kupapa, Greek Kybebe (a form of Cybele). Taking the place-names and personal

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names of men and gods now recognized as such, and making a number of extremely happy new identifications, Bossert published in 1932 a monograph, *Santaš und Kupapa*, in which he placed the decipherment of the hieroglyphic inscriptions on a solid basis. This was followed by a series of articles by Meriggi and Bossert, supplemented by a new and partly independent decipherment by Hrozny (1933), in which appeared numerous additional discoveries which have greatly extended the scope of our knowledge. Some fifty phonetic characters and many ideograms can now be read with more or less confidence; many personal and place-names have been correctly read, and a great many grammatical forms and particles are explained (though often only approximately). The greatest single handicap is our ignorance of the vocabulary.

‘Clear summaries of the results already obtained, with sound methodical discussion, will be found in a review by Sturtevant, *Language*, 1933, 273-9, and an article by Dhorme, *Syria*, xiv (1933, published in March 1934), 341-67. The language is unquestionably related to cuneiform Hittite (Nesian), and it seems to be a dialectic variant (or a group of dialects belonging to the stock) of Luyyan, which was spoken in southern Asia Minor and northern Syria in the second millennium B.C.

‘The value of the complete decipherment of these inscriptions for our knowledge of the ancient history of Syria, as well as for biblical studies, is evident’.

MESOPOTAMIAN ARCHAEOLOGY

Dr R. E. MORTIMER WHEELER writes to *The Times* (11 October) as follows:—‘The extensive and fruitful archaeological exploration which has in recent years been carried out in Mesopotamia by British and other expeditions has not yet received adequate recognition in the curricula of the English universities, and special attention may therefore be drawn to two courses which have recently been arranged in the University of London, under the auspices of the newly-constituted University Institute of Archaeology. The first of these is a two-year course on the archaeology of Mesopotamia, under the direction of Mr. Sidney Smith, Keeper of Egyptian and Assyrian Antiquities in the British Museum, and Professor S. H. Hooke, Samuel Davidson Professor of Old Testament Studies in the University of London. The second is a course of six general lectures, designed for a wider public, by Dr C. Leonard Woolley on “Ur and the Development of

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Sumerian Art " at the Courtauld Institute of Art, Portman Square, beginning on October 29. Further information in regard to both courses may be obtained from the Secretary of the Institute of Archaeology, Lancaster House, St. James's, S.W.1'.

PREHISTORIC OX-YOKING

From time immemorial oxen have been yoked in pairs for working. The reason for this is three-fold : (1) for centuries oxen have been trained by yoking a partially broken animal with a trained one, as described by Varro, 'imitando enim facilius domatur' (RR., I. 20, § 2) ; (2) being creatures of habit, cattle thus work better in pairs than singly—and for heavy work one ox is not enough ; (3) it is easier to make a yoke for two oxen than to contrive harness for one. Early evidence for yoking in pairs is found :

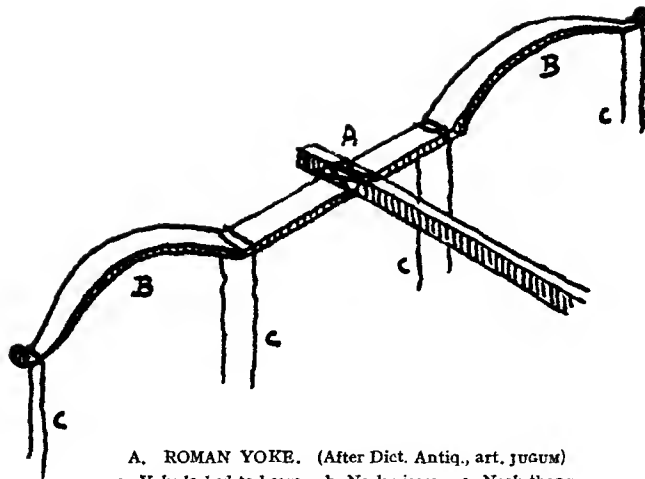
(a) in rock carvings of Copper or Bronze Age in the Alpes Maritimes, where oxen are depicted yoked with a straight bar across the neck. (Burkitt, *Our Early Ancestors*, pl. 28, fig. 1).

(b) in a Bronze Age model of a ploughing scene from Cyprus, with a similar yoke (MAN, 1933, 134).

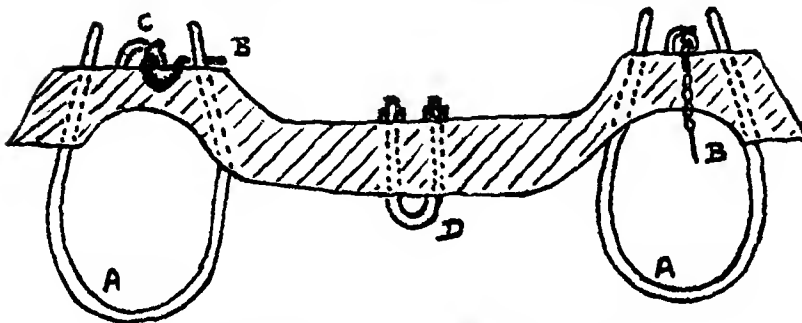
(c) in various Egyptian representations, e.g. with a straight bar lashed to the base of the horns, as in Wilkinson, *Ancient Egyptians*, 1854, figs. 358, 366, 368 ; or with curved wooden (?) shoulder-pieces fastened under the neck, as in the Papyrus of Kamara (21st dynasty).

Lashing the yoke to the horns cannot have been a universal method, because all oxen have not suitable horns, and horns that curve downwards over the cheeks, besides being often naturally loose, are unsuited to this type of yoking. Since a sudden strain is liable to break even firm horns, this method can only have been used for the lightest work.

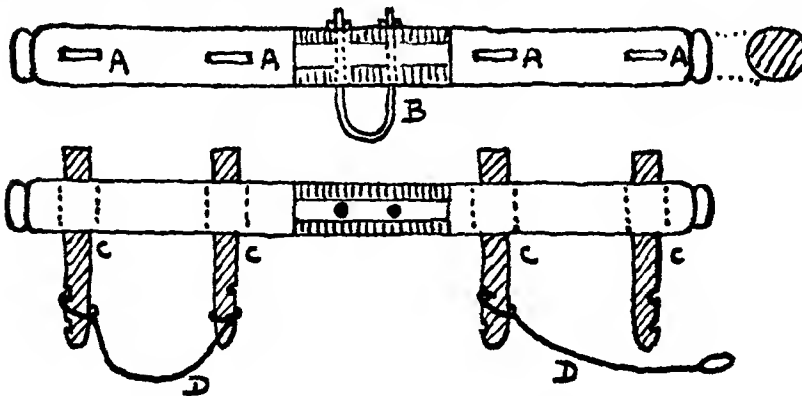
Roman yokes consisted sometimes of a straight flat bar tied to the neck with a leather collar, and sometimes of a bar with curved ends fastened with thongs (FIG. 1, A). The earliest form of yoke was no doubt, like the Bronze Age yokes already mentioned, a straight bar held in place by a leather thong passing under the neck, and either tied to the yoke as in FIG. 1, A, or put through holes as in FIG. 1, B. Modern ox-yokes are often unnecessarily cumbersome, like the Sussex yoke in FIG. 1, B (*Reliquary*, 1905, XI, 222). In South and East Africa we use a straight bar 5 ft. long, with slots at regular intervals to receive four notched wooden pegs (skeys), to which are attached looped thongs of twisted leather (strops). (FIG. 1, C).



A. ROMAN YOKE. (After Dict. Antiq., art. *jugum*)
a, Yoke lashed to beam. b, Neck-pieces. c, Neck-thongs



B. SUSSEX YOKE. (After 'Reliquary', xi, 222)
a, Ashwood collars. b, Peg attached by chain to staple c to hold collars. d, Staple for draught chain



C. MODERN EAST AFRICAN YOKE
a, Slots. b, Draught staple. c, Wooden pegs put through slots a. d, Neck-thongs

FIG. 1

Scale: 0 1 2 3 4 feet

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The ancient method of fastening the yoke to the plough-beam, simple enough if you have an iron staple, is more difficult. The prehistoric yoke may have been lashed to the beam, as in FIG. 1, A—a bad method, since an unduly rigid yoke is liable to cause sore necks; or it may have been fastened by a leather link between two loops fastened to the yoke and the beam respectively (FIG. 2.)

One ox is not enough for all kinds of work, and, indeed, the tractive-power of an average ox is less than two-thirds of that of a horse.

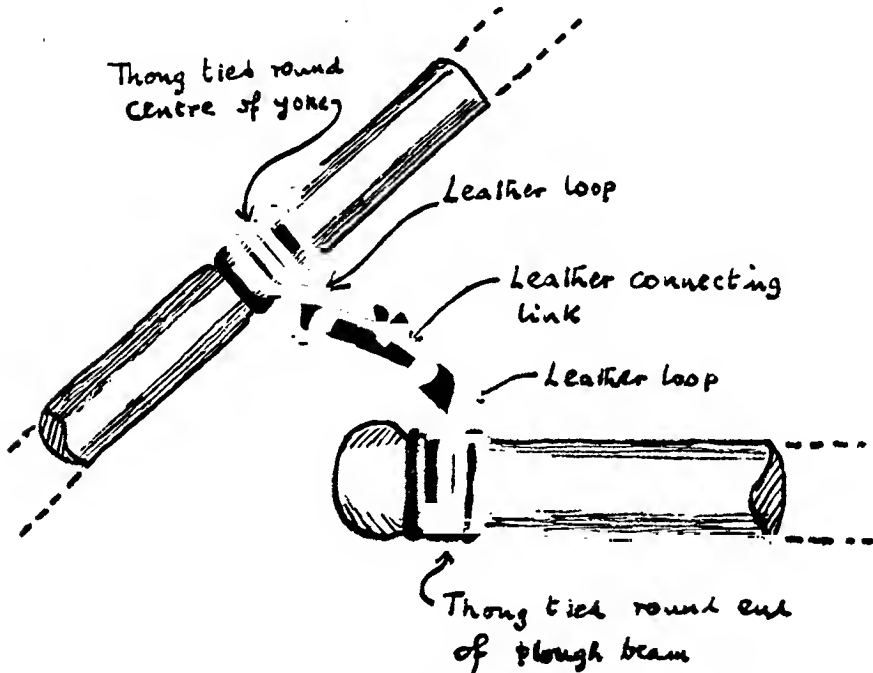


FIG. 2. SUGGESTED ALTERNATIVE METHOD OF FASTENING YOKE TO PLOUGH-BEAM

(Cf. McConnell, *Agricultural Note Book*, ed. 9, p. 54). Thus the common single-row horse-hoe is pulled by one horse, but requires two oxen; one ox *can* pull it, but does less than half an acre a day, as against $2\frac{1}{2}$ acres with two oxen; and even the lightest form of steel plough with a head-wheel requires two oxen. The following figures of the draught, weight, and acreage of tillage implements used today in Kenya may be useful in estimating ancient cultural operations:

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	Weight	Draught	Acres in 8 hours
Very light plough - -	85 lbs.	2 oxen	$\frac{1}{2}$
5-tine horse-hoe - -	67 "	2 "	$2\frac{1}{2}$
1-furrow mouldboard - -	365 "	10 "	1
2-furrow disc plough - -	1150 "	12 "	$1\frac{1}{4}$
3-furrow disc plough - -	1350 "	16 "	2
Tooth harrow - -	182 "	6 "	—
16-disc harrow - -	900 "	8 "	—
5-furrow disc plough - -	2050 "	[30 BHP. tractor]	12 [10 hours]

These figures of draught and acreage are from my own fieldwork ; that of the tractor is computed from an average speed of $2\frac{1}{2}$ MPH.

G. W. B. HUNTINGFORD.

POND BARROWS

This, not very happy, name was given by Colt Hoare, in place of Stukeley's 'inverted barrows', to certain artificial depressions which can best be described in Hoare's words :—

‘ They resemble an excavation made for a pond : they are circular and formed with the greatest exactness ; having no protuberance within the area, which is perfectly level ’.

It is equally true to say that they resemble a natural spring-pond or bourne-hole, when dry (see *Wessex from the Air*, p. 249 and references there given).

The following is a list of pond barrows in Wiltshire, based on Canon Goddard's List of Prehistoric Remains in *Wilts. Arch. Mag.*, Dec. 1913, xxxviii, 153–378.

DURRINGTON, Goddard 10. Near a large group of barrows.

PRESHUTE, G. 9. ‘ A deep pit surrounded with bank ’ at the end of a line of 5 barrows.

WINTERBOURNE STOKE, G. 3a. Touching the ditch of a large bell-barrow (4), one of a numerous group.

— G. 12 : site 7a. This pond barrow is close to a barrow (8) showing an unusually elaborate interment.

— G. 23. Near the end of a line of barrows 1–10 and 22.

BISHOPS CANNINGS, G. 14. ‘ A circular pit beautifully shaped ’, fourth in a line of five.

WILSFORD (S. Wilts.), G. 82 (12, 13, 14, 15). Of these 82 (12) is the one exception to the rule that pond barrows yield no remains. It contained ‘ a circular cist with burnt bones ’. The whole neighbourhood is a barrow-field.

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It is fairly certain that the list is not complete : a pond barrow is very inconspicuous and might easily be passed over as a small chalk-pit. Colt Hoare writes ' we generally find one or more of these barrows in the detached groups '.

The absence of remains was emphasized by Thurnam (*Archæologia*, 1869, XLII, 167). Apart from the Wilsford example, he knew only of one ' bit of red pottery ' found by Stukeley, and a fragmentary interment (probably long subsequent) found by himself. He agreed with Stukeley's conjecture that they were in some way connected with the cult of the dead. I should like to carry this conjecture further. In its simplest terms the problem is : what is the relation between a Pit and a Grave-field ?

We happen to have good literary evidence for the association of Pits with Ghosts in the Bronze Age. When Odysseus goes to the kingdom of Persephone to get advice from the dead prophet Tiresias, his instructions from Circe, which he punctually executes, are to dig a pit (*βόθρος*), a cubit each way, to pour a libation (*χοή*) about it to all the dead, and to vow an offering on his safe return home. Then he takes the sheep he had brought for the purpose, and cuts their throats over the pit. Thereupon the ghosts gather round. But Odysseus, sitting sword in hand by the pit, allows none of them to drink the blood until Tiresias appears, drinks, and so becomes capable of speech (*Odyssey* XI, 25-50 ; 97-99).

In historic Greece the same association is apparent in the festival of the Anthesteria. The three days of this spring feast are the Pithoigia (the opening of casks), the *χόες* (cups : compare the *χοή* offered by Odysseus) and the *χύτροι*. This last word is specifically used of natural depressions in the ground—bathing pools ; hollows. It is equated in Pausanias (IV, 35, 9) with *κολυμβήθρα*=a pool, and in Theophrastus (*Hist. Plants*, 4, 11, 18) with *βάθυσμα*=a depression. A Greek would have called one of the bourne-holes on the downs a *χύτρος*. And from Suidas we get the valuable scrap of information that the closing act of the festival was the cry :

θύραξε κῆρες οὐκέτ' Ἀνθεστήρια.

Ghosts, be off : Anthesteria is over.

Thus in both cases we have the same elements : (1) a pit or hollow, (2) a libation, possibly, in its later form, a drinking bout ; (3) communion with the spirits of the departed. My suggestion is that a pond barrow is just such a *βόθρος* or *χύτρος* as early Greek ritual required to bring the ghosts up from the underworld and to dismiss them by. This

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would explain (a) its regular association with a grave-field ; (b) its careful construction ; (c) the almost complete absence of material remains. The Greek ritual suggests that when there was no natural access to the underworld (such as a limestone country provides abundantly) a substitute might be made by digging a pond barrow.

G. M. YOUNG.

ARCHAEOLOGICAL WORK IN THE U.S.S.R.

The *Moscow Daily News* reports (no. 673, 27 July 1934, p. 2) that several archaeological undertakings were to be launched during the past summer and autumn. 'The Central Asiatic expedition will carry on interesting excavation work in Ferghana and Khoresm ; at the same time it will collect data on the irrigation systems which formerly existed there, thus facilitating planning of new canals. At the request of irrigation organizations, this expedition will also determine the direction in which the restless Amu Daria river is shifting its bed. . .

'Archaeologists will further lend a hand to geologists in Eastern Siberia where no tin deposits are known at present, but where a number of bronze articles have been found containing a large percentage of this metal—evidently obtained in the vicinity of Minusinsk.

'An expedition which will work in the regions to be flooded by the construction of the Volga-Don canal will for the first time investigate thoroughly what remains of Sarkel—capital of the Khazar kingdom destroyed by the Slavs in the 10th century, which at one time was as important a trading centre as Kiev in the 10th to 12th centuries. The expedition will further compile a history of the construction of the Volga-Don canal (attempts to connect the two rivers were made by the Turks in the 15th century and by the Russians under Peter the Great).

'In Siberia, excavation work will be carried out on a large scale on the sites of the paleolithic settlements which will be flooded when the Angara dam is constructed.

'It is hoped that excavation of ancient settlements located in the vicinity of the Yaroslavl dam, now under construction on the Volga, will help solve the problem of the origins of the Slavs. . .

'An opportunity to study the remnants of Greek colonies which once existed around Kerch, Crimea, is also offered by the extension of iron ore mining there which entails the removal of the entire upper soil layers.

'A sum of 300,000 roubles has been assigned for the work of the above expeditions, most of the funds being supplied by the

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administrations of the constructions job concerned'. The value of this sum at the official rate of exchange would be about £52,000; but actually the internal value is very much less.

We have only two comments to make on this programme. The first is to express a hope that here, as in the industrial undertakings themselves, the co-operation of foreign specialists will be obtained. Today the technique of excavation has advanced to a stage far beyond the low level of tsarist Russia. For instance, the Central Asiatic expedition should begin by air-photographing the district where ancient irrigation systems are found. This should be an indispensable preliminary to their campaign.

Secondly, we hope that full and adequate publication of results will follow at the earliest possible date. The diffusion of knowledge is as important as its advancement. We hear from time to time that archaeological activities are under weigh in the U.S.S.R.; but there as a rule the matter ends. Failure to publish results is the besetting sin of excavators; we hope it will not blight the promising beginnings of socialist science.

O.G.S.C.

MINES AND GEMS

In working through the literature of Roman mining in Britain I noticed a coincidence which may have some significance and to which, as far as I know, attention has not been drawn.

From the Roman lead-mining centre at Charterhouse on the Mendips some fourteen engraved signet gems, which are illustrated by Haverfield (see below), have been obtained, attributed to the first century; and from Bath a horde of 28 gems, some of which are rudely executed, accompanied by a 'first brass' of Titus. These particulars are taken from Haverfield's 'Romano-British Somerset' in the V.C.H. (*Somerset*, I, 252, 337, fig. 93), where references are given.

The first record is remarkable for a mere mining village; the second is easily explained as a dealer's stock for sale to visitors. Could the gems have been engraved at Charterhouse for sale at Bath, the nearest likely market?

In South Wales Roman occupation of the gold mining area of Dolaucothy probably began by A.D. 80. One of the finds is an onyx seal set in cement for engraving and still in an unfinished state; one gold trinket was set with a sard and several were ready to receive stones

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(see Wheeler, *Prehistoric and Roman Wales* and refs.). Here it seems certain that someone connected with the mining engraved gems, presumably in his spare time. The Roman method of dressing the ore by pounding and grinding provided a large amount of finely divided but angular quartz, which would be an admirable abrasive for his purpose.

These facts strongly support the suggestion that the Somerset gems were made under similar conditions at the lead mines. Were these and the Welsh examples made by a single individual who was employed successively at the lead and the gold mines, or was gem-engraving a frequent occupation for those connected with mines? It would be interesting to know whether notable quantities of engraved gems have been found at Roman mining centres on the Continent.

C. N. BROMEHEAD.

ROCK SCULPTURES (PLATES I-II)

The problem of distinguishing accidental or natural from intentional engravings on rocks is constantly encountered by archaeologists. At least two serious attempts have been made to prove that marks caused by ice or by the coulter of the plough or by some similar agency were an unknown form of script.¹ They are a vivid illustration of the blindness of the student to the 'common objects of the countryside'. A little more familiarity with rocks and boulders, or at any rate a closer observation of them, would have saved the writers from their unfortunate lapses. However, the object of this note is not to criticize but rather to help; and the accompanying illustration needs little description. It shows a boulder on a large cairn (known as White Cairn), in the parish of Glencairn, Dumfriesshire. It bears fresh, unweathered marks, obviously made by the coulter of a plough. The cairn, though regarded as a 'long' one (*i.e.* prehistoric) by the Royal Commission is, in my opinion, merely a collection of stones picked from the field. It is still forming, as the lighter-coloured piles of 'recent accessions' proves. In the illustration (PLATE I) the white roll consists of 6-inch maps, and is 16 inches long.

Other marks may be caused by differential erosion. Prolonged

¹ 'Early scribed rocks of the Isle of Man', by the Rev. Canon Quine. *Camb. Ant. Soc.* 1922, XXIV, 84-94.

'The origin of the Ogam alphabet', by F. C. Diack. *Scottish Gaelic Studies*, 1931, III, 86-91.

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exposure to rain and wind cause the softer portions of a rock to disappear more quickly than the harder ones. On a large scale this may be seen at the Devil's Arrows, the Queen Stone (Herefordshire) and in many other standing stones. The marks are seen to cease abruptly when the unexposed buried portion is revealed.

Cup-marks are caused both by man and nature, and often it is quite impossible to say which. PLATE II shows some that occur on one of the stones forming the circle called the Twelve Apostles, near Dumfries. These are agreed to be of natural origin, and occur also on some of the rocks of the district. Something similar seems still to be made by snails on the carboniferous limestone rocks of Brean Down.² Many alleged artificial markings are simply the casts left by fossils.

Those who wish to see good examples of genuine rock-sculptures should inspect those in the north of England and in Scotland (Rombald's Moor near Ilkley, Dod Law and so on). O.G.S.C.

GREEK SHORTHAND

A problem in deciphering certain inscribed wooden tablets of the third century A.D. in the Department of Manuscripts in the British Museum, which had baffled all attempts at a solution, has now been solved through material which has also found its way to the Department and has provided a translation. An interesting article on the key to the script was printed in *The Times* 18 October (p. 7), from which we have taken the following notes :—

' In 1887 the Department of Manuscripts in the British Museum acquired nine wax-coated wooden tablets of the third century A.D., inscribed with what was at once recognized not only as a Greek shorthand but as the work of a pupil ; the symbols were repeated in series, obviously for practice. Many attempts were made to decipher these and other surviving examples. But the clue remained hidden for nearly 40 years, in spite of the fact that Professor Wessely, of Vienna, had already in 1895 established certain basic principles of the system—discoveries which have recently been extended by Professor Mentz, of Königsberg. It began to look as if full interpretation was impossible. Then, in 1924, the British Museum purchased two third-century papyrus volumes which supplied the much-needed key to the problem.

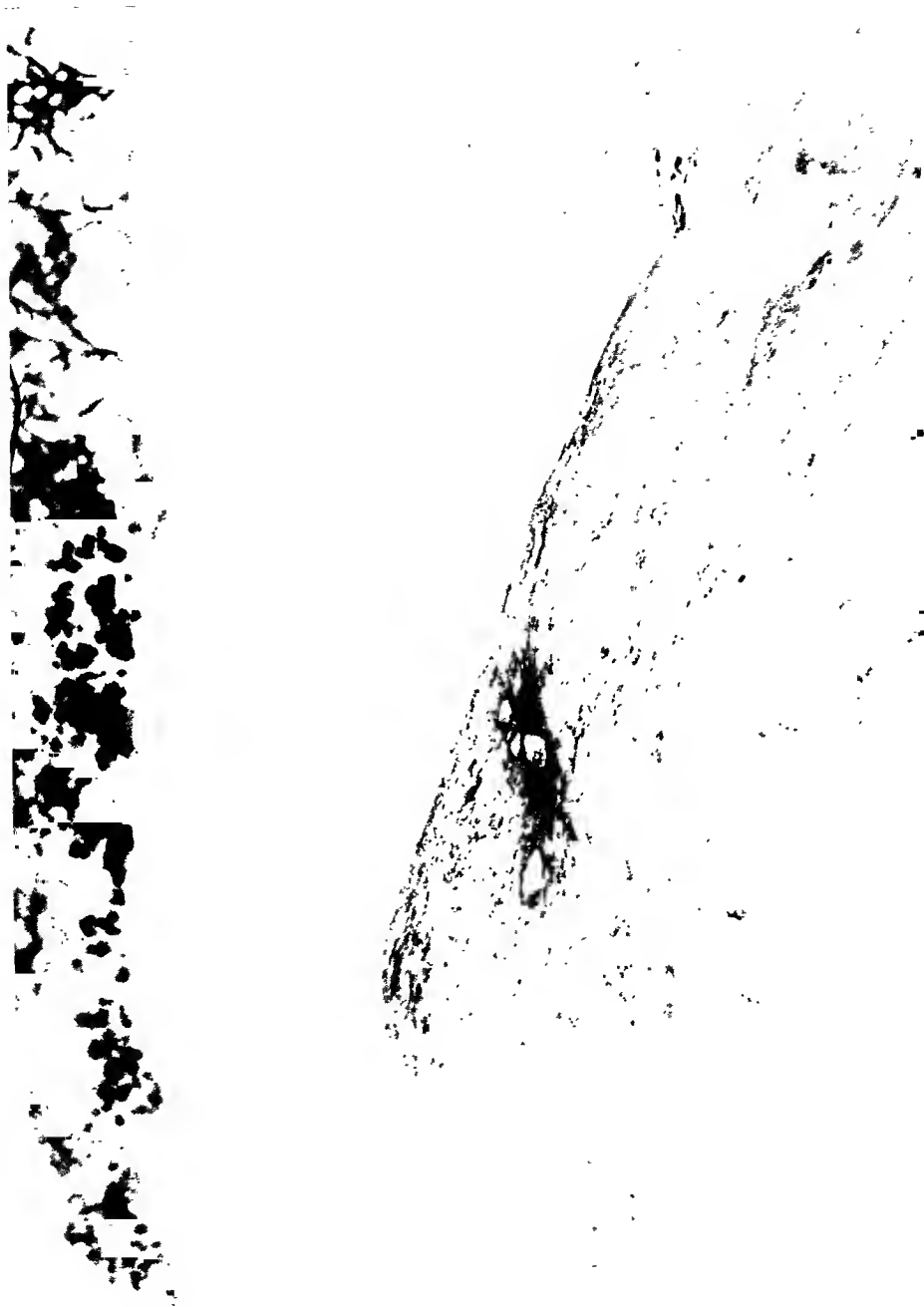
² *Proc. Somerset Arch. Soc.*, 1912, LVII, 26 (plate 3).

PLATE I



PLOUGH-MARKED BOULDER, WHITE CAIRN, FLEUCHLARG, GLENCATRIN, DUMFRIESSHIRE (See p. 463)
(The roll of maps is 16 inches long)
Ph. O. G. S. Crawford

PLATE II



NATURAL CUP-MARKS ON STONE, 'TWELVE APOSTLES' IN CIRCLE, NEAR DUMFRIES (See p. 464)
Ph. O. G. S. Crawford

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‘ These papyri contained by a happy chance the identical series of signs that appeared on the waxed tablets. They also contained their translation in longhand. In a volume to be published by the Egypt Exploration Society Mr H. J. M. Milne, of the Department of Manuscripts, has edited both sets of material, and it will now be possible for the first time to see the whole system as it actually worked.

‘ The material published by Wessely in 1895 consisted of the first leaf of a shorthand primer, or Syllabary, with fragments of others. This elementary course can now be gauged to a fuller extent from a papyrus in the possession of the Egypt Exploration Society, which also comes into Mr Milne’s purview. The Museum material carries the course on to its second stage—the so-called Κομμεντάριον, or Commentary. The possession of such a complete conspectus of Greek shorthand is of immense value, since no reconstruction from a stenographic inscription, however ingenious, could hope to offer such certain conclusions. It is of greater interest in that we also know the terms under which, in the second century, aspiring clerks were able to acquire the art of shorthand writing.

‘ Among the Oxyrhynchus papyri (P. Oxy. 724) are the articles of apprenticeship of a slave to a shorthand writer (σημειογράφος). The terms are sufficiently entertaining. The slave, Chaerammon, is to study for two years “ the signs which your son Dionysius knows ” (the arrangement is made with Dionysius’s father) for a fee of 120 drachmae. Of this sum 40 drachmae have been paid in advance ; 40 will be due “ when the boy has mastered the Commentary ” ; and the final instalment is postponed until he “ writes fluently and reads faultlessly ”. There can be little doubt that the Commentary referred to is that which the Museum papyri contain, or that the waxed tablets are the exercise books of a later Chaerammon ’.

HISTORY FILMS*

The use of Films for the purpose of presenting historical events was demonstrated at the International Geographical Congress held at Warsaw in August–September last, when the Editor of the *Canadian Geographical Journal*, Mr Lawrence J. Burpee, and Major G. L. P. Grant-Suttie gave a lecture on the Discovery of Canada. The lecture was illustrated with a motion picture in the form of an Animated Map designed by Mr Burpee and prepared by the Canadian Government

* See ANTIQUITY, June 1934, p. 207.

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Motion Picture Bureau. The following description of the film is taken from the *Canadian Geographical Journal* for August 1934.

‘ The screen presents at the beginning merely a map of the country in faint dotted lines. On this outline is gradually built up the results of the discoveries of the different explorers.

‘ Starting with the voyages of the Northmen to the Atlantic coast, a little ship travels across the ocean, and as it touches Labrador a bit of the coast appears on the map with the name Helluland ; the ship sails south and Markland is added to the map, and then Vinland. Then John Cabot sails west from Bristol, and makes his contribution to the exploration of the Atlantic coast. Jacques Cartier follows, and as he enters the Gulf of St. Lawrence, a “close-up” is thrown on the screen and the explorer’s course is given in details around the gulf from the north shore to the Magdalens, Prince Edward Island, Chaleur Bay, Gaspé, Anticosti, and so home again by way of the Strait of Belle Isle. In a similar way the St. Lawrence is added to the map, and the Great Lakes, Hudson Bay, the Pacific coast, the vast interior, and the Arctic coast and islands. So the story of the exploration of Canada is told on the screen, the appearance of each explorer being followed by a brief but sufficiently descriptive title. This novel application of the mechanism of “Mickey Mouse” to the interpretation of maps and the history of geographical discovery has already attracted a good deal of attention among educationalists’.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

Dr Falkenstein of Munich University has been studying the early pictographic scripts of Mesopotamia—the oldest writings in the world. It is still not possible to translate them; but his researches have enabled him to discover the general sense of certain combinations of symbols. Thus numbers are represented by stabs made with the blunt end of the reed stylus, and indicate two systems of numeration—a decimal and a duodecimal. Many of the tablets represent receipts or bills for quantities of corn or other merchandize. Scholars will look forward eagerly to the publication of Dr Falkenstein's book in 1935.



Dr Heinrich is working on the definitive publication of the excavations he has been directing at Uruk (Erech) on behalf of the German Scientific Relief Organization (*Notgemeinschaft der Deutschen Wissenschaft*). The results obtained there during seven seasons rank with Ur and Jemdet-Nasr in importance for the early history of Mesopotamia. Some of the objects obtained are exhibited in a room in the new wing of the Near Eastern Department (Berlin Museum). This wing was opened in 1934 and carries a step further the great plan of its Director, Dr Andrae, whose perseverance and technical skill must excite universal admiration. A feature of this new wing is the ingenious method of lighting the objects in wall-cases by natural light reflected from mirrors. Another is the reconstruction of a row of round pillars encrusted with mosaics, belonging to the court-wall of the Eanna-temple at Uruk.



The English Place-Name Society has published as its eleventh volume a survey of the place-names of Surrey. The next survey

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will be for Essex, for which much unpublished material was collected by Dr Reaney before the Society was established. Two volumes for this county will be needed. The membership of the Society is now over 800 and indicates the interest taken in this particular subject.



The excavations begun for discovering the sanctuary of the Argive Hera at the mouth of the river Sele in Lucania—according to Strabo a temple founded by the Argonauts—have already led to interesting results. Dr Paola Zancani and Dr Umberto Zanotti-Bianco report finding a large Doric temple about 51 ft. by 118 ft. and dating from c. 500 B.C. Only the foundation walls remain but important fragments of sculptured work have been recovered. One metope represents Herakles armed with club carrying off the Delphic tripod. A number of votive heads and terracotta statuettes have also been found. (*The Times*, 2 August 1934, p. 9).



The fossilized remains of two mososaurs ('sea-serpents') have been placed in the National Museum at Ottawa. (*The Times*, 22 August, p. 13). They were excavated from clay-beds in southern Manitoba, where they are estimated to have 'lain buried for 60 million years'! The mososaur moved by sudden and quick lateral movements. Speaking of aquatic animals one may add that a film has just been shown of the still unidentified inhabitant of Loch Ness. Eminent zoologists and professors of Natural History were among the invited guests and it was their general opinion from the movements and manner of swimming revealed by the film that the creature is 'in all probability a member of the seal family, possibly a grey seal' (*The Times*, 6 October, p. 10).



A Teutonic cemetery has been unearthed at Szentes, in Hungary, which appears to have been the burial-place of warriors in the 3rd or 4th century. A large number of weapons were found. (*The Times*, 25 August, p. 13).

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Reports of the progress made at Maiden Castle under the direction of Dr R. E. Mortimer Wheeler have been published in *The Times* of 1 August, p. 9; 10 August, p. 13; 25 August, p. 7; 7 September, p. 14; 17 September, p. 8.



Mr Jon Stefansson has communicated to *The Times* (27 August, p. 13) that a gold coin, and 26 silver ones, all of the time of Nero, have been found in the floor of a house at Ginderup, North Jutland. He suggests that it was a hoard of a Danish Viking which points to the relation between Scandinavia and the Roman Empire being very much earlier than hitherto believed.



The excavation of Meare Lake Village, Somerset, which has now been conducted by Dr A. Bulleid and Mr St. George Gray for over twenty years, was resumed in August. Reports of the finds are given in *The Times* 28 August, p. 13, and 12 September, p. 7.



Professor V. Gordon Childe has been investigating the fort on Finavon Hill, which commands the Aberdeen-Forfar road at the entrance to Strathmore. It was a fort of great strength, with rampart over 20 feet thick and once rising to over 20 feet on the outside. Masonry to a height of 12 feet still remains. None of the finds dates the fort precisely but the balance of probabilities favours pre-Roman rather than post-Roman. (*The Times*, 30 August, p. 9).



Further details of the discoveries made by Mr Alexander Keiller at West Kennet Avenue, Avebury (see *ANTIQUITY*, September 1934, p. 344) are reported in *The Times*, 4 September, p. 6, and it is hinted that the site may be given to the Nation.



The King of Rumania is giving personal interest to the excavation of the Roman amphitheatre at Sarmisegetusa, in the Hatseg Valley, Transylvania. The site has for some years been under the care of

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Professor Daicovici, of Cluj University. The city was founded by the Emperor Trajan in 106 and became the capital of Dacia Felix. (*The Times*, 25 September, p. 17).



The exhibit of an Ivicene dog, said to be the oldest breed of dog in the world, proved a great attraction at the annual show of the Buxton and District Canine Association held in October. 'Pedro' was brought from Majorca, the home of the breed, five years ago and is believed to be the only Ivicene in England. The Ivicene is the greyhound of Ibiza, one of the Balearic Islands, and an illustration (page 416, plate 10) was included with the plates accompanying the very interesting article on Dogs by Dr Hilzheimer in *ANTIQUITY*, December, 1932.



Interesting features have been found in the course of excavating a long barrow called Giant's Hills, at Skendleby, near Spilsbury (Lincs.), which has been undertaken by Mr C. W. Phillips and Mr A. H. A. Hogg. The east end was supported by a revetment of trunks of trees split into halves, and the holes into which the balks were placed can still be traced. There is evidence of Bronze Age and Iron Age settlements present. Human remains indicate the burial of several persons. (*The Times*, 1 September, p. 8).



'Mummy wheat' is again to the fore, and one or two absurd statements as to germination have been made. Sir Wallis Budge has intimated (*The Times*, 6 September, p. 13) his willingness to present grains of ancient-Egyptian wheat to scientists to test, so that his reiterated opinion that such wheat is incapable of germination may be supported. His letter was followed by others, including a very informative one by Mr A. B. Bradley (2 October, p. 10) giving results of tests as to the vitality of wheat grains which he and Mr R. Whympster carried out in 1910. Under the most favourable conditions of storage and treatment the vitality of 'mummy wheat' is considered as about 50 years.

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Excavations at Breiddin Hill camp, Montgomeryshire, have been continued this season under the direction of Mr B. H. St. J. O'Neil of H.M. Office of Works. Attention was given to the main entrance and it was found possible to plan the whole. There seems no doubt that the gateway is pre-Roman. Three phases of occupation are shown. Details are given in *The Times*, 31 August, p. 13.



A full report of the work continued at the Viking settlement of Jarlshof (see *ANTIQUITY*, VI, 84 and VII, 484), Sumburgh Head, Shetland, conducted by Mr A. O. Curle for H.M. Office of Works, is given in *The Times*, 10 September, p. 9.



Remains of a primitive copper-smelting industry have been found near Temba Bulach in the Kizil Kum desert, by a prospecting expedition organized by the Soviet Academy of Science (*Monthly Review*, issued by the Moscow Narodny Bank, London, September, 1934 [VII, no. 9] 25).



An American professor of psychology is bringing up his child in close association with a baby chimpanzee of the same age. They are being kept as far as possible under like conditions and their reactions and growth of intelligence observed. At present the chimpanzee is ahead (*Berliner Tageblatt*, 2 September).



Persistent rumours have reached England of a linear earthwork called by various names—the Dane's Cast, the Black Pig's Race, the Worm Ditch—and said to run across Ireland from sea to sea. No continuous line of earthwork ever crossed the country; there are merely a certain number of disjointed fragments. We hope to publish an account of these remains at a later date.

Recent Books and Articles

This list is not exhaustive but may be found convenient as a record of papers on subjects which are within the scope of ANTIQUITY. Books are occasionally included.

A hoard of late Roman coins from [Sharaoh Field, Nobottle] Northamptonshire; its parallels and significance, by B. H. St. J. O'Neil. *Archaeological Journal* 1933, xc, 282-305. [Distribution-map of Theodosian coin-hoards in Britain].

Prehistoric Britain in 1933, by Jacquetta Hawkes and Christopher Hawkes. *Ib. id.* 315-338.

This 'review of periodical publications' differs from the one published quarterly in *The Antiquaries Journal* by being classified under subject-heads; these are chronological for the most part, with occasional useful exceptions (*e.g.* Photography, Megaliths, Beakers, etc.). By undertaking this review the compilers have added several points to the rapidly mounting score of the *Archaeological Journal*.

Monastic paving-tiles, with special reference to tiles discovered at Shulbrede Priory, Lynchmere, by Lord Ponsonby of Shulbrede and the hon. Matthew Ponsonby. *Sussex Arch. Collections*, 1934, LXXV, 19-64.

An excellent and much needed account, with illustrations and a full (but slackly composed) bibliography.

The Chichester entrenchments, by J. P. Williams-Freeman, M.D. *Ib. id.* 65-106.

A masterly account of these puzzling earthworks, based on field-work.

The distribution of sheep in Sussex in the early fourteenth century, by R. A. Pelham. *Ib. id.* 129-35.

A short, but most valuable and suggestive study in economic historical geography. The Adur separates the black-faced poll-sheep of East Sussex from the white-faced horned sheep west of it, the former representing the original stock of the South Downs. The heavy loam soil covering the chalk west of the Arun would have produced woodlands in prehistoric and medieval times, and thus been unsuitable for sheep-rearing. Statistics prove that, in the early 14th century East Sussex produced far more sheep. 'The relatively large numbers of sheep in the corn-growing parishes [as compared with those which possessed down-pasture] draw attention to another interesting point, viz. that large stretches of open downland were not essential for sheep-farming in the Middle Ages'. This contrast between east and west goes back to neolithic times. East Sussex has far more long barrows than West Sussex.

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A late Bronze Age farm and a Neolithic pit-dwelling on New Barn Down, Clapham, near Worthing; excavation report prepared on behalf of the Worthing Archaeological Society by Dr E. Cecil Curwen. *Ib. id.* 137-170.

A characteristically thorough and lucid report on a so far unique site. Except for some Saxon barrows and the neolithic pit the site is unmixed with confusing relics of other periods. It consists of a farm with road leading up to it through contemporary arable fields (evidenced by lynchets). We could have done without plate II, but have nothing but the highest praise for Mr Gurd's admirable plans and drawings.

Sussex barrows, by L. V. Grinsell. *Ib. id.* 216-275.

A fully documented account with statistical tables that will become the classic article on the subject.

The origin of the West Saxon Kingdom; a lecture delivered on July 17, 1934, at Wilton House, by G. M. Young, in aid of the Wiltshire branch of the Council for the Preservation of Rural England. Oxford University Press, price 2s. 1934.

An interesting essay, full of suggestive ideas; but sometimes passing onto debatable ground.

Maps illustrating the Viking invasions of England, by T. D. Kendrick, M.A. *Saga-book of the Viking Society*, 1934, XI, 61-70.

It is impossible to imagine anything more useful to those, whether teachers or lecturers, 'who want to illustrate a popular account of the Viking invasions of this country'. The five maps with the accompanying few lines of text give all that most of us need to know about the Danish raids.

The excavation of a hut-group at Pant-y-Saer in the parish of Llanfair-mathafarn-eithaf, Anglesey, by C. W. Phillips. *Arch. Cambr.*, June 1934, LXXXIX, 1-36.

A Dark Ages site, dated by a silver penannular brooch, and yielding also potsherds, of a kind that only the most careful methods of excavation would detect. The plan of the group is a fine piece of work. A feature of the article is Dr F. S. Wallis's 'Report on the heavy minerals contained in the coarse Pant-y-Saer pottery'.

Excavations at Titterstone Clee Hill camp, Shropshire, 1932, by B. H. St. J. O'Neil. *Ib. id.* 83-111.

Excellent 'structural finds', but small objects unfortunately absent.

Caer y Twr, a hill-fort on Holy Island, Anglesey, by Willoughby Gardner. *Ib. id.* 156-173.

Accompanied as always by Dr Willoughby Gardner's admirable plans and sections.

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Report on the excavations at Hembury Fort, by Dorothy M. Liddell. *Proc. Devon Arch. Exploration Society* [1932, I, part 4].

A valuable report on this very important undertaking. (The off-prints should have volume and year printed on cover). Miss Liddell informs us that this season 'an outer neolithic ditch across the east Iron Age entrance' has been found, about 160 yards from the previous neolithic ditch.

Excavations in Whitehawk neolithic camp, Brighton, 1932-3, by E. Cecil Curwen. *Ant. Journ.*, April 1934, XIV, 99-133.

An important supplementary dig; see also *Sussex Arch. Collns.*, 1930, LXXI, 57-96 and *ANTIQUITY* 1933, VII, 476.

The National Plans (the ten-foot, five-foot, twentyfive-inch and six-inch scales). Prof. Papers, new series no. 16, of the Ordnance Survey. By Brigadier H. St. J. L. Winterbotham, C.M.G., D.S.O., A.D.C., H. M. Stationery Office, 1934. pp. 107, appendix and 21 plates with frontispiece. 4s 6d.

In this volume, crammed full of facts, the Director-General describes the methods and processes of the Ordnance Survey, bringing the old matter up to date in so far as the maps on large scales are in question. There are included many interesting details on matters not hitherto published, which have sometimes puzzled users of this wonderful series of sheets. It seems a pity that the numerous quotations, doubtless from official documents in general, have no references or dates. The volume includes four pages and three admirable plates devoted to antiquities; but the treatment is necessarily brief. A chronological summary should prove valuable to all in any wise interested in this great National Survey, which now more than ever calls for public support. The illustrations are excellent and the cost very reasonable. G.T.M.

Survivals of Paganism in Anglo-Saxon England, by Wilfrid Bonser. *Trans. Birmingham Arch. Soc.* 1934, LVI, 37-70.

An early mesolithic site at Broxbourne, sealed under boreal peat, by S. Hazzledine Warren, J. G. D. Clark, H. and M. E. Godwin, and W. A. Macfadyen. *Journ. R. Anthropological Inst.* 1934, LXIV, 101-128.

The monument of Tin Hinan in the Ahaggar, by E. F. Gautier. *Geographical Review* [American Geographical Society], July 1934, 439-43.

A somewhat vague account of a most interesting tomb.

Guernsey megaliths; their secrets revealed by night, by Florence Ayscough: notes based on a paper delivered before the Congress of pre- and protohistoric sciences at King's College, London, August

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1932. Reprinted from *Report and Transactions of La Société Guernesise*, 1933.

The point of this paper is that, by photographing sculptured stones with a strong side-light surface irregularities are revealed by their shadows. The method has long been familiar to archaeologists, and is used in museums for photographing seal-impressions and bas-reliefs. It is the same principle as that used in air-photography to reveal low banks and mounds ('shadow-sites'). The author publishes photographs of the well-known Guernsey statue-menhirs (dolmen idols). Her claims would have received more attention if her article had been easier to follow and the photographs technically better; one (plate IV, 1) is out of focus, another (plate II, 2) is badly fogged, and so on. But the method is sound enough, and might with advantage be applied to, for example, the inscribed stones of the Celtic west. Only a good modern camera is essential, and the skill to use it.

Excavations at the Wady al-Mughara, Palestine, 1932-3, by D. A. E. Garrod. *Bull. Amer. School of Preh. Research*, May 1934, number 10, 7-11.

The oldest complete skeletons of Man, by Theodore D. McCown. *Ib. id.* 13-19.

Archaeological reconnaissance in Yugoslavia: American expedition, season of 1933, preliminary report, by Vladimir J. Fewkes. *Ib. id.* 29-62 (with selected bibliography).

Further evidence that this most important, but hitherto neglected key-region, is beginning to attract the attention of serious and competent archaeologists. (See also *ANTIQUITY* 1933, VII, 229).

The prehistoric temple of stratum IX at Tepe Gawra, by E. Bartow Muller and Charles Bache. *Bull. Amer. School of Oriental Research*, April 1934, number 54, 13-18.

Carries with it a plan of the temple and of the stratum or level (no. 9) in which it occurs (why no scales given?), together with an excellent 'suggested restoration' (fig. 14). The discovery was described in the Bulletin, no. 49, p. 10.

Studies in the significance of the Irish Stone Age: the Campignian question, by C. Blake Whelan. *Proceedings of the Royal Irish Academy*, XLII, section C, no. 7, 1934.

Reports on the excavation of a flint chipping-floor accompanied by hearths in the townland of Ballynagard, Rathlin Island. The bulk of the flints show a 'Campignian' facies, but they include a broken axe with ground cutting edge. In the immediate proximity of one of the hearths a rim-piece of Windmill Hill ware was found. The 'Campignian' industry at this site is thus shown to belong to the Neolithic period.

J.G.D.C.

Reviews

THE DAWN OF CONSCIENCE. By JAMES HENRY BREASTED. *New York and London : Charles Scribner's Sons, 1933. pp. xxvi, 431 and 19 plates. 3 dollars.*

Professor Breasted has attempted a mightier task than he imagines and than the readers of his title would suppose. An archaeologist is concerned strictly with material objects, and Professor Breasted is here avowedly examining what his research provides in the guise of a philosopher, or, as he would prefer it, as a speculator on the origin of moral judgments. The result is a splendid summary of all the relevant documents that illustrate the slow emergence of *Homo Sapiens* from the age-long period of supremacy of *Homo Faber*. As the author points out, man became the first weapon-making creature, and for perhaps a million years has been perfecting those weapons ; but it is less than five thousand years since men began to feel the power of conscience to such a degree that it became a potent *social* force. Nor are those periods exclusive of each other for, as the author says, in the valley of the Somme can be found side by side fragments of his first and of his latest weapons. But it is with that five thousand years that the Professor is concerned in this book, and his careful accumulation of evidence and his searching analysis of ancient moralizing gives us for the first time a chronological study of the development of moral ideas in Egypt. He has, in effect, written what should have been the earlier chapters of Hobbhouse and Westermarck.

It is in the Valley of the Nile that the author sees the first breeding ground of morality. For here was what he calls a 'social laboratory' which, exempt from the rigours of the European Ice Age, was gradually isolated and insulated by the desiccation of surrounding regions. Into this oasis came those hunters who were to become the sedentary Egyptians, and from their undisturbed development of society were to emerge the first speculations on spiritual values. Between 5000 and 3500 B.C. arose the first great civilized state of the world and from its acts and its literature we can now study its development of ideas.

The first document is perhaps the most interesting. In a text of a mystery play written at Memphis in the middle of the 4th millennium, which is a priestly study of the origins of the world, are revealed a number of judgments based on customs which had not yet become a system of morals. It contains, says Prof. Breasted, 'the oldest thoughts of men that have anywhere come down to us in written form'. In the Memphite Drama we find the fundamental assumption that mind or thought is the source of all, a primitive idealism expressed in the words 'It came to pass that heart and tongue gained the power over every member'—in other words that speech and thought controlled action. Moral behaviour is outlined as 'doing that which is loved' and immoral behaviour as doing 'that which is hated', the simplest statement of social or private morality possible. Here at the start is the social background and social sanction of action. It remains to be seen whether the author, or indeed anyone else, can show that there has ever since been any advance from this basis. In the background, not really fitting into this Memphite scheme of morals, the priests introduced the Omnipotent Sun-God, and it is here at the very outset that Professor Breasted fails to detect the *non sequitur* in the priestly

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philosophy. If morals were dependent on social reactions, there is no place for theological concepts. Egypt may well be said to have been the first offender against logic as well as the first to speculate on morals. The intrusion of a deity into a social background was a complication that was not needed to make the moral speculations complete. Ptah of Memphis took over the attributes of the sun and was attached loosely to the embryo moral system. Prof. Breasted fails to note the intrusion, as an intrusion.

With the discovery of morals and the addition of a controlling god the Egyptians next had to face the problem of death. Here Professor Breasted is at his best, and his accumulation of material is of the highest value. So far death and a possible after-life were not linked in any way to moral systems. The Egyptians of the early Dynasties faced the paradox of death with nothing but material weapons. The Pyramids, themselves in a sense solar emblems pointed at the heavens, represent 'the culmination of the belief in *material equipment*' as completely efficacious in securing felicity for the dead. 'They represent an attempt to conquer physical forces by physical force, perhaps the most imposing attempt in the world', the final effort of a struggle 'which had been going on for a million years'. But now it was the disciplined forces of a whole nation instead of an isolated hunter which were brought into play. The Pyramid Texts constitute an attempt to convey felicity to the dead king by every agency of ancient lore and wisdom. But so far the attempts of the Egyptians to obtain eternal life were concentrated on their king. Of the commoner we hear nothing, for, almost as soon as Egypt had become a social entity, theocracy and kingship got control.

Professor Breasted describes the gradual growth of Egyptian religion, the compromise with Osiris, and the steady growth of Solar cults. The next literary contribution to moral study which he examines is the work known as the Maxims of Ptahhotep, which 'furnish us with the earliest formulation of right conduct to be found in any literature'. Ptahhotep summarizes the moral outlook of his age. His Maxims are as typically Oriental in form and outlook as the Koran, though mainly secular, shrewd and almost Machiavellian. But still morals are entirely social and the link with theology or religion is not yet established. The important thing that has now emerged is a consideration of Conduct, with moral implications. The term *Maat* now achieves the meaning of 'moral conduct' and so later of 'Right' or, more abstractly, 'Justice'. *Maat* is not found in the Memphite Drama. A vocabulary of terms for moral philosophy is being built up.

Next comes a period of disillusionment. The mighty attempt to defeat material decay by material survival, illustrated by the Pyramids, has failed. Political changes had even left the Pyramids abandoned and partly in a state of dilapidation. 'There they stretched like a line of silent outposts on the frontiers of death'. Their failure was evident. And so we now get, illustrative of the age, the 'Song of the Harp player'—

'Put song and music before thee
behind thee all evil things,
and remember thou only joy,
till comes that day of mooring
at the land that loveth silence'.

Here at last is the failure of theology and maxims and embryo moralizing. The Egyptians had reached the sceptical age. The reason was not inherent in their speculation but was due to a general political breakdown which had made life intolerable. Again it is society which is making morals. An administrative order had perished and with it man's hope of good order and government. Then came an age of prophets and

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messianism. The 12th Dynasty sees the restoration of social order and the emergence once more of moral speculation. Slowly the concept of abstract social justice appears and society is conceived of as more than the close corporation of princes and priests. But the 'Tale of the Eloquent Peasant' is eloquent more for what it tells us of the abuses of princes than of the amelioration of the conditions of the serfs. The picture it draws shows with what bitter slowness Egyptian ideas of abstract justice and morality were in fact developing. Here, I think, Professor Breasted fails us, for he seems unaware of the appalling delay in moral development which the now fully civilized Egyptians exhibited. For Egypt now had a cast-iron social order which 'eloquent peasants' were almost powerless to change. The 'Tale' of the peasant is no more than a political squib to show how the princes and potentates were caring for their subjects. One wonders how long Greeks would have endured the social order revealed in this tragic tale.

Slowly we see the growth of sacerdotalism and its assistant magic. Gradually abstract moralizing becomes a prerogative of the theocracy. The priesthood was in the saddle. Then in the time of Thutmose III comes the great imperial expansion of Egypt, and with it the development, natural as a consequence of world power, of Monotheism. World-relations produced universalism. From this came the new religion of Ikhnaton, the social and religious revolution that changed the whole course of Egyptian history and then the mysterious suppression of the revolution by an all-powerful theocracy. The fact that no man knows the way in which Aton worship and Ikhnaton were disposed of is itself testimony to the immense power of the vested interests which the revolution unseated. Sacerdotalism is paramount again, and from now on Egypt is on the down grade as far as speculation and freedom are concerned.

Professor Breasted has written a fine and stimulating book, which will be an example for speculative archaeologists and should be in the hands of every student of moral philosophy, particularly of those who are interested in the genesis of morals. For here is all the first hand material clearly set out.

The debt of Hebrew literature is so great to preceding Egyptian that it almost seems that the bulk of the Old Testament is derivative. Prof. Breasted makes a very strong point of the fact that the Hebrew writers distilled the essence of nearly two thousand years of Egyptian speculation into their writings. His parallel texts of Amenemope and the Book of Proverbs shows how profound in some cases the debt to Egypt was. Moses, whose very name is Egyptian, he shows to have been a leader fully educated in Egyptian customs, who persuaded the Hebrews to cast out their local 'ēls', or deities, and adopt Yahveh, a more important volcano-god in Sinai, as their sole god. The occasion, Professor Breasted thinks, was an actual eruption in Sinai followed by a tidal wave. In enjoining circumcision on his followers Moses was but taking over an Egyptian rite practised for three thousand years before. The Egyptian origin of the 104th Psalm is also made perfectly clear.

There is no dull page in this book; a little over-emphasis and repetition here and there will not deter the reader. He will finish it with the feeling that the brave beginnings of speculation in Egypt were soon stifled, that a direct association of moral behaviour with religious belief was never achieved, and that from Egypt there could never have sprung the main growth of European philosophy. Between Greece and Egypt there is an unbridgeable gulf. The moral philosopher will gather an immense quantity of material, yet feel at the end that there is here no proof that morals can be conceived of as having any genesis or sanction outside society. The sociologist will consider with sadness that the story of speculation in Egypt is a story which has subsequently been repeated in

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every detail at various periods. There has been no steady advance from where the Egyptians left off. On the contrary endless attempts have been made, beginning all over again from the outlook of the Memphite Drama. None of them seems to have been very successful.

STANLEY CASSON

CATO THE CENSOR ON FARMING. *Translated by ERNEST BREHAUT.* (Records of Civilization : Sources and Studies, vol. xvii). *New York : Columbia University Press ; London : Oxford University Press, 1933. pp. XLVI, 156, with 1 plate and 6 line drawings. 18s 6d.*

The treatise *De Agri Cultura* of the elder Cato takes no high place as a work of literature, but it is a document of the very greatest importance for the economic history of Republican Rome. Written in the first half of the second century B.C., by one who was himself a farmer of the old school, as a practical guide for the gentleman-agriculturalist or his foreman, it represents the transition from the old Italian agriculture, devoted mainly to the production of cereals and based on a system of small holdings in the hands of free peasants, to the new order in which the vine and the olive were supplanting grain-crops and the peasant proprietors were giving place to absentee landlords, working large estates by slave labour. The style of the work is scrappy and disconnected and most of it is nothing more than rough notes, but in its way it provides a fairly complete calendar of the farmer's year, and at the same time gives valuable sidelights on other matters—on the building of the farm and its equipment, with special reference to oil- and wine-presses, on the supply of labour, partly by slaves, partly (at busy seasons) by freemen working under contract, on the condition of slaves, their management and feeding, on the old religion of rural Italy and its relation to agriculture, and on the primitive medicine which finds in cabbage a specific against all ills from gout to deafness.

Mr Brehaut has carried out the work of translation well : if he has given his version rather more literary form than the original possesses that at any rate will make the English reader more comfortable. There are one or two slips, but only in minor matters. The text is supplemented by an ample series of scholarly footnotes, in which some of its difficulties and obscurities are cleared up and parallels are adduced from ancient authorities and modern practice and by a careful introduction, in which Mr Brehaut lays emphasis on the adaptation of the practice of the small peasant grain-farmer to the needs of the large-scale wine- and olive-farm worked by slave labour.

The reader who desires an introduction to ancient agriculture can find nothing better than Cato's handbook as presented and interpreted by Mr Brehaut. It is a pity that the price is unreasonably high ; though the book is handsomely produced, the illustrations are neither numerous nor elaborate.

C. J. FORDYCE.

ENQUIRIES INTO RELIGION AND CULTURE. *By CHRISTOPHER DAWSON.* *London and New York : Sheed & Ward, 1933. pp. xi, 347. 8s 6d.*

This is a sheaf of essays on a wide range of subjects, unified by an Idealist and, in details, a specifically Roman Catholic view of history. The chapter-headings will give the prospective reader some idea of what particular problems he will find discussed : the New Leviathan (on ' mass-civilisation ') ; the significance of Bolshevism ; the world crisis and the English tradition ; the passing of industrialism ; cycles of civilization ; religion and the life of civilization ; civilization and morals ; the mystery of China ; rationalism and intellectualism ; Islamic mysticism ; spiritual intuition in Christian

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philosophy ; St. Augustine and his age ; Christianity and sex ; religion and life ; the nature and destiny of man.

As will be seen, much of the book falls outside the scope of ANTIQUITY and I will confine myself therefore to one or two questions of principle.

The book reads well and the philosophy running all the way through makes it possible to read its chapters consecutively without that feeling of jarring which is inflicted by many collections of essays dug out from study-table drawers and strung together haphazard. Unlike many of the intelligentsia whom he criticizes, Dawson does know where he stands and he can express his standpoint with clearness and learning, qualities which are not always twin-brothers.

On p. ix Dawson says : ' The trained theologian may often fail to recognise the social and economic elements in religious changes '. But this protest against what he calls ' a false spiritualism ' does not prevent him from being as agile as his fellow Idealists in their happy lands of angels, gooseberry-bushes, and parsley-beds. His chapter on ' Religion and the life of Civilisation ' (in which the gem is ' behind the hard rational surface of Karl Marx's materialist and socialist interpretation of history there burns the flame of an apocalyptic vision ' ! p. 111) shows this abundantly. Readers of Rhys Carpenter's *The Humanistic Value of Archaeology* (Harvard, 1933) will remember the comment on Langlotz's theory (*Antike*, 1932, VIII, 170-82) that it was the coming of the Oriental cult of Dionysos which ended the Dark Ages of early Greece : ' To me, Dionysos is merely a symbol or symptom of the awakening force. Men have nearly always the kind of religion that they are ready for and that they deserve. In the 8th century B.C. the outside world of Babylon, Assyria, and Egypt where the civilisation of the western world began, had once more touched Ionia and Greece ; and it was this contact which ended her barbarism ' (pp. 54-55). There has been a deal of mystification about both babies and Ideas, and the inadequacy of the Idealist position can best be brought home to the layman by an enquiry into the less well-known periods of history like 8th century Greece ; a discussion of better known periods is apt to be fogged by all sorts of modern influences, ' the glory that was Greece ', the influence of the Christian tradition, to name but two.

To condemn Idealism does not involve abandoning idealism (which is not synonymous with the burning flame of an apocalyptic vision). In his introduction one of Dawson's premises is that Materialists, if consistent, cannot help being materialists—which seems suspiciously like taking advantage of the limitations of language in order to ' prove ' that your opponents, if consistent, are rather sordid folk and if they are not sordid folk are really acting on similar principles to yourself and are therefore inconsistent.

At a time when many people are wanting to know what Marxism is all about, it is unfortunate that a book which is an able exposition of the Idealist position should be so unhelpful in its references to Marxism, in spite of appearances to the contrary. Here in his introduction and his essay on ' The significance of Bolshevism ', so far from getting down to an analysis of the Dialectical Materialism of the Marxists, Dawson does not even define his terms. On p. vii we are told that Marxist philosophy is ' materialistic ' ; on p. 24 we meet the phrase ' dialectical materialist ' in a quotation ; on p. 27 we have a little raillery at ' the Bolshevik philosophy '. But all this gets us no further. How many readers would realize from Dawson's pages what Dialectical Materialism is or even suspect that it is a philosophy distinct from Mechanistic Materialism, the form of Materialism which we have been in the habit of calling simply Materialism without qualification ? As if the Marxists had not demolished Mechanistic Materialism with as much gusto as Dawson likes to demolish it himself !

GEORGE SHORT.

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MEGALITHIC REMAINS IN SOUTH SUMATRA. By Dr A. N. J. TH. à TH. VAN DER HOOP, translated by WILLIAM SHIRLAW. *Zutphen, Holland: W. J. Thieme & Cie* (no date). pp. 191, with 226 plates and 17 maps. [Price not stated; but ascertained to be £1 12s 6d paper, £1 15s 0d cloth bound].

While the existence of megalithic remains in the Indian Archipelago has long been well known, their ethnological and archaeological significance is scarcely, if at all, understood. The possibility of their having been connected, however remotely, with the very similar remains in Europe and the Near East is one that naturally appeals to the European archaeologist, for one is reluctant to believe that two closely similar groups of peculiar phenomena could arise independently on opposite sides of the globe without some common cause or common origin. Before this problem can be solved, and, indeed, before one can fully understand our own megaliths, it is obviously essential that detailed surveys should be made of all areas of megaliths throughout the world, studying and recording every individual monument and every relevant fact bearing upon it.

Dr Van der Hoop's study of the megaliths of South Sumatra is a step in this direction. His work in the field has been as systematic and thorough as his opportunity permitted, short of excavation, and his record is full and clear, and, above all, sumptuously illustrated. He himself is far from claiming that his work is exhaustive, and though he quotes a certain amount of comparative material from neighbouring areas he emphasizes that the prime necessity is the collection of facts in regional surveys, postponing comparisons and generalizations until this has been more widely done. Indeed, he has a good deal of polite scorn and gentle ridicule for the 'Manchester School', which, he argues, presumes to formulate theories as to what might have happened, instead of waiting for the patient and laborious collection of facts, upon which alone useful conclusions can be built up.

The remains which the author classes as megalithic in South Sumatra comprise: 53 images; 20 'lesoengbatoe' (possibly single or multiple mortars); 12 stone troughs; standing stones in at least 8 places; 8 groups of four stones placed in a square or rectangle; 2 stone avenues; at least 20 dolmens; 9 stone cists; 2 terrace graves; cup-marked stones; and 7 miscellaneous objects. The association of these various classes of remains with one another leads the author definitely to conclude that they all belong to one single megalithic culture. While some of these monuments have no counterpart in Europe, others, such as dolmens, standing stones, stone cists, and cup-markings, are old friends, and it would be difficult to think that in origin they had no connexion with the movement that affected so much of northern and western Europe.

After a systematic descriptive catalogue of the individual monuments, arranged topographically, the various classes of remains are considered in turn, both on their own merits and in relation to similar remains elsewhere in the Archipelago. The most important of these are the images, because, if the author is correct in regarding them as an essential part of the culture as a whole, it is from them alone that any clue can be obtained as to the period to which it belongs. Unfortunately these representations of the human figure are not sufficiently accurate portraits to make possible an anthropometric determination of the race which they represent. Nevertheless one important clue is forthcoming as to their date. An image in the Batoegadjah represents a man riding an elephant and carrying strapped on his back a peculiar kettle-drum. Bronze kettle-drums of exactly this type are found distributed in the Archipelago and in South China and Tonkin, in which latter district examples found in a cemetery at Dong-son have been dated to the Han dynasty of China (206 B.C. to A.D. 220); in this instance the date can be narrowed down by associated coins and a sword to the second half of the

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first century A.D. Short swords, daggers and bronze plates (armour ?) found at Dong-son also have their counterparts in the images of South Sumatra, while confirmatory evidence is further supplied by various forms or ornament. The question as to whether these kettle-drums originated in the Archipelago or in Indo-China is discussed, and evidence is quoted in favour of the latter district as being the area of origin, though the type continued to be made with variations after its introduction to the islands, as witness a stone mould for casting such a drum found in Bali. A further suggestive point is found in the analysis of certain ancient bronze arm-rings found in South Sumatra, showing an unusually high percentage of lead which closely corresponds with the lead content of the Dong-son type of kettle-drum, but not with that of any of the other later types.

The various purposes of standing stones are discussed, especially in relation to areas where they are still used. In Central Celebes they are sometimes erected in circles at a place of sacrifice. Of special interest to British archaeologists is the view of Heine Geldern (cited by our author) to the effect that 'megalith-building peoples frequently substitute wooden monuments for those of stone, when they find themselves in a region where suitable stone is lacking' (p. 119).

Though dolmens occur elsewhere in the Dutch East Indies, and have been proved to be graves, our author says: 'On no occasion did we find any indication that the dolmens of South Sumatra had been used as a grave'; and again: 'We never came across dolmens in the form of a tomb, as these exist in Besoekei'. The reasons he gives for this conclusion are that the supporting stones are sometimes too low to leave sufficient space beneath the cap-stone; that they frequently resemble the legs of a table rather than the walls of a chamber; occasionally, also, they stand so close together that there is scarcely any space between them. Moreover, one dolmen yielded no trace of interment when excavated.

A few minor points of interest include the following: (1) A monolith near Badzava (apparently not in Sumatra), formerly served to determine the beginning of the period when rice must be sown; when the sun rose above this stone, as seen from the house of the tribal chief, seed-time was considered to have come (p. 115). Comparison is made with Stonehenge. (2) The idea that megalithic monuments are petrified human beings is general in the Archipelago, and comparison is made with the Rollright Stones in Oxfordshire (p. 5). (3) Stone axes in Sumatra are called 'teeth of the lightning' and are preserved as charms against sickness (p. 94). In Europe they are frequently called 'thunder stones' or 'Thor's hammers', and are valued as charms. (4) The orientation of the monuments is in all instances carefully worked out, but does not in the author's opinion warrant any conclusion as to a possible solar cult.

While arguing that the evidence justifies the view that the megalithic culture of South Sumatra dates from the beginning of the Christian era, the author wisely insists that conclusions as to the race or people who introduced it would be premature until far more field-work has been carried out all over the world. Megaliths have a world-wide distribution, and chronologically they range from the neolithic in Western Europe to the present day in Assam and elsewhere (see *ANTIQUITY*, 1929, III, 324-38). Recent views regard them as an expression of a cult of the dead, that is, as evidence of a religious rather than a racial or cultural expansion. It may be that detailed field-work will yet reveal the path by which this idea may have swept across the world like a forest fire, originating from one centre, fanned by the trade winds, spreading in one or more directions, dying out along its track, and blazing out afresh as it advances.

The author's work is thorough, scholarly and discreet. The photographs are very

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fine indeed and are beautifully reproduced. There are no less than 171 of cabinet size and 10 twice as large.

The translation is good on the whole, though there are too many errors in spelling and in idiom. The term 'Ordnance map' has no meaning outside Great Britain, but it is coming to be used to signify a Government map—a compliment that Great Britain must appreciate, though based on a misconception.

E. CECIL CURWEN.

A HISTORY OF DELOS. By W. A. LAIDLAW. Oxford: Basil Blackwell, 1933. pp. 308, 8 plates and a plan. 18s.

This monograph falls into line with a number of similar works on Greek islands, many of which are published only in Greece. Delos, however, cannot rank as a mere Greek island, for its history largely reflects the history of Greece and its sanctuary was of international fame. The author has compiled a painstaking study of the whole history of the island and its inhabitants. All such compilations are as necessary as they are dull. Mr Laidlaw has not succeeded in avoiding the essential dullness of his task, nor has he attempted to diminish it by any felicities of style. But this is the only conceivable complaint which can be lodged against a very thorough and useful piece of work.

After a proper investigation of the history and legends that concern the island he outlines the results of excavations and recent research. The bulk of his book is largely given up to a full account of Delos during the Hellenistic and Roman periods, for at those periods the local epigraphical sources are richest. The alternation of Athenian control, autonomy and Roman or Pontic control made Delos for many centuries a place of international fame, not merely from the religious and political points of view but also from the commercial aspect.

The virtual extinction of Delos in 88 B.C. makes it for students of art a place of unusual importance, for that date can serve as a *terminus ante quem* for a very little known period of artistic development. But the author is not much concerned with the artistic finds of Delos. He catalogues the most important, but his seven pages on 'The art of Delos' is a mere appendix, and a rather unsatisfactory one at that. His description of the Nikandra dedication as a 'relic, scarcely sculpture' shows a profound inability to appreciate the strivings of early sculptors. He fails to call attention to the important Cretan figures of the seventh century from Delos; and is uncertain about the date of Archermus.

But the book is useful and will serve historians of the Hellenistic age well. It contains a mass of useful references and well summarized information. The illustrations are, unfortunately, quite useless. Their photographer does not even know the rudiments of archaeological photography.

STANLEY CASSON.

THE RENAISSANCE IN EUROPE. By TRENCHARD COX. (London the Treasure-House Series). Methuen, 1933. pp. 180 and 22 plates. 6s.

This is the first of a series of small books which will deal with a period of history and illustrate that period exclusively from the galleries and museums of London. No praise can be too high for such a project.

This volume covers the Renaissance and illustrates almost every phase of Italian art from the Proto-Renaissance to the Late Renaissance by a discussion of material in the National Gallery, the Wallace Collection, the South Kensington Museum and elsewhere. It constitutes the best possible guide to some of the principal art-treasures of London. But it is more than this, indeed Mr Cox has written a short, concise and very scholarly

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history of Renaissance art. On every phase he has something important and original to say. He points out at the start that Italian artists were not treated as 'extraordinary beings in whom every kind of eccentricity might be condoned and each turn of temperament forgiven, but as craftsmen under contract'. He goes on to show how sculpture was at first the vehicle which carried the new spirit of the Renaissance, and later handed over the task to painting. He then takes the painters and sculptors in chronological order and discusses their characteristics as exemplified by their works in London. The astonishing wealth of London in works of the High Renaissance is fully illustrated by his discussions. Of the work of Leonardo da Vinci, Botticelli and Michelangelo London can show more than any other city outside Italy. He also writes of Renaissance work in France, Germany and the Netherlands. Of the Flemings he remarks that 'in the matter of technique, they achieved in a night what the painters of Italy had struggled for centuries to attain'. While Van Eyck was achieving an uncanny realism, Uccello was 'initiating the Florentine public into the delights of a rocking-horse world'.

This is from all points of view an admirable book, strongly to be commended to Londoners of all sorts, ages and conditions, to all foreigners and to all artists. Its sale should be deservedly large.

STANLEY CASSON.

LA PRÉHISTOIRE: Conférence faite le 1er mars 1934 pour l'Union Rationaliste. By VAYSON DE PRADENNE. Paris: *Union Rationaliste*, 1934.

This little lecture was delivered by M. Vayson de Pradenne to an educated audience without special knowledge of prehistoric archaeology and represents an interesting essay on the place of the subject in the general field of knowledge. The author, in commenting on the poor press that prehistoric archaeology has generally received, makes the sound point that having defeated clerical opposition archaeologists have now to contend with the ill-concealed scorn of their brother scientists. This he ascribes partly to the natural jealousy of older established sciences, but partly also to the faults of archaeologists themselves, notably an over indulgence of imagination and critical standards that fall too far below those obtaining in kindred subjects.

The faults to which M. de Pradenne draws attention are partly due to the youth of the subject, since where so little is known the gaps are liable to be filled by imagination with disastrous results to the intellectual integrity of workers in the subject. There is, however, another explanation to be found in the social standing of many of the earlier archaeologists, too many of whom were land-owners and (in our own country) priests of the established church, both groups with a vested interest in the maintenance of a certain social order and therefore not only uncritical themselves but intolerant of the critical outlook and of the free range of intellect. This adverse sociological factor still weighs heavily against the unfettered progress of prehistoric archaeology in this country, though its influence is fortunately on the wane.

J.G.D.C.

DIE GRABFUNDE AUS DEM SPANISCHEN WESTGOTENREICH. Band II, Germanische Denkmäler der Völkerwanderungszeit. By HANS ZEISS. (Publication of *Römisch-Germanische Kommission des Archäologischen Instituts des deutschen Reiches*), Berlin and Leipzig, 1934. pp. VIII, 207, with 32 plates. RM. 33.

This is the second volume of an important series of publications, sponsored by the *Römisch-Germanische Kommission*, which sets out to survey by means of regional studies the complete Migration Period archaeology of the German peoples. Walter

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Veeck came first with his book on the Alamanni and Franks of Württemberg, and the second publication, now under review, is Dr Hans Zeiss's account of the Visigoths of Spain. All those who know this author's work will expect a book conspicuous for its impressive thoroughness, and they most certainly will not be disappointed. It is, indeed, a noble and astonishing survey that well illustrates the archaeological virtues that Dr Zeiss possesses in so high a degree, namely a devotion to order and accuracy, and an extraordinary sensitiveness to the niceties of typological and mechanical development. The plan of each volume is apparently to be the same, which some of us may regret as it is one that seems to lead to a considerable amount of wasteful repetition, since under the separate headings 'Typology of Objects', 'Chronology of Cemeteries', 'Cultural Position of the Finds', we get what very nearly amounts to the same information three times stated. One might suggest that it would have been better to begin with the very fine historical account of the Visigoths (which now comes at the end immediately before the inventory), to have given us next the bibliography of the cemeteries accompanied by a good distribution map showing their positions (this is omitted, for the map on p. 94 cannot be counted a sufficient guide), to have followed this with a single comprehensive typological and chronological study of the material, and to have ended with an adequate summary and conclusions. But there is nothing seriously wrong for those already accustomed to Veeck's book, and, in general, there can only be praise for Dr Zeiss's volume. He shows himself to be a most sagacious observer, refreshingly free from fixed ideas, and very willing to concede that there are Migration Period antiquities earlier than the 7th century. His study of the Late Roman archaeology of Spain is a particularly valuable section of the book, and the attempt to isolate the 'transition' cemeteries is also of much interest. Like everybody else dealing with Migration Period antiquities, Dr Zeiss is almost immediately compelled to obtain his chronology by means of a sort of stylistic and typological dead reckoning, that is distressful reading for those accustomed to deal with material that can be dated by safer methods. He has, however, a real flair for this perilous work and is to be congratulated on the reasonably convincing chronological system he has evolved. One would only want to dispute with him over a very few details, and there is no doubt that we shall all use his book gratefully and admiringly. It is splendidly illustrated with a fine set of plates, nearly all devoted to small personal ornaments of metal. Visigothic archaeology contains very little pottery, no glass at all, and only a few characterless weapons, so that Dr Zeiss's imposing chronological structure is therefore built up on a foundation consisting almost entirely of brooches and buckles. But he has studied these little articles with such painstaking care that we are left with a very considerable respect for his conclusions.

T. D. KENDRICK.

HOMENAGEM A MARTINS SARMENTO: *Miscelânea de Estudos em Honra do Investigador Vimaranesense no Centenário do seu Nascimento (1833-1933)*. Publication of the *Sociedade Martins Sarmiento*. *Guimarães*, 1933. pp. 480, *illustrated*. 70 escudos (56 francs).

This volume commemorates the centenary of the birth of the Portuguese archaeologist, Martins Sarmiento, in 1833. He is everywhere famous as the excavator of Citânia de Briteiros, but the honourable record of his work is perhaps of less importance than the results of the influence he exerted in Portugal, where he was the pioneer of scientific archaeology. A charming introductory essay by Mário Cardozo makes the debt that is

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owed to him very plain, and none will say that this centenary volume is not a just tribute to the memory of a great and inspiring scholar. There are no less than 68 contributors, and the field covered by the essays is a wide one, including studies in folklore, literature, and music, in addition to the archaeological topics. The British authors represented are Dr Felix Oswald, who writes in French (why ?) on evidence for the presence of the 8th Legion in Britain, Mr Leeds (Egyptian vitreous beads in Spain and Britain, imported before 1200 B.C.), Dr Prestage (Portugal as a pioneer of Christianity), and Mr Radford, whose admirable essay on the Early Iron Age in southwestern Britain must surely be hailed in all countries as one of the best of this collection of admirable papers. From the Peninsula itself come 30 papers from Portuguese scholars and 13 from Spain, so that the total value of the volume for the archaeology of these two countries is considerable. The 7 German authors have also devoted themselves in the main to problems of the Iberian lands. Dr Kühn writes on the openwork figured buckles from the Visigothic cemeteries, which he connects with Avar archaeology and dates in the 7th century. Dr Zeiss has an article on late Roman pottery, Schulten gives us a study of Segeda, and von Richtofen discusses bee-hive huts in the Peninsula, a particularly fine paper. The late Portuguese scholar, Serpa Pinto, is represented by an article on the stone fort of Sendim, which, even though it was left unrevised, shows how good an archaeologist his country has lost. It is interesting to note that he is the only author in the whole book who gives a line-drawing of a pot as modern archaeologists expect to see it, complete with section. In general, the volume has a few faults, the chief being that it is one of those remarkably irritating books which are enormously heavy and yet of such astonishingly delicate construction that the turning of a single page threatens the whole affair with disruption. Many of the pictures, notably the half-tones, are not good, and it ought to have been possible to have produced a much better-looking volume. For instance, the print could have been larger and the margins narrower with advantage, and the running head might well have been the short title of the article beneath it instead of the uselessly reiterated name of Sarmento. Finally, the list of contents should have been expanded by a 'subject' or 'period' classification of the papers.

T. D. KENDRICK.

ÖLAND UNDER ÄLDRE JÄRNÄLDERN. By MÅRTEN STENBERGER. Publication of *Kungl. Vitterhets Historie och Antikvitets Akademien, Stockholm, 1933. pp. vii and 306, illustrated. 15 Kr.*

Öland is a Baltic island, a narrow strip of land 85 miles in length, lying close in to the southeast coast of Sweden, and this book is an archaeological survey describing its antiquities from the beginning of the pre-Roman Iron Age to the end of the Viking Period. It is a brilliant work, splendidly produced and illustrated, and complete with a full apparatus of inventories, indexes, bibliographies, and distribution maps. There is also a German summary for those who do not read Swedish. The book begins with an account of the burials, which have produced some grave-groups of considerable importance to the British archaeologist, particularly for those who are interested in shield-bosses and weapons. The next section, which is of astonishing wealth and forms the greater part of the book, deals with homestead plans and contains a complete monograph on the 'Kämpagrav' or 'Hunnebed' house-type in its European setting. This is a long rectangular form of dwelling with low walls of stone and earth on which rested the edges of a gabled roof that was further supported by rows of posts inside the house.

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With it is associated a rectangular field-system. Over 300 of these houses occur in the island and the type is believed to be of western origin, no Scandinavian example being earlier than the beginning of the Christian era. The third and final section deals with the camps, of which the most interesting, Ismantorps Borg, must surely rank as one of the chief prehistoric monuments of Sweden. It consists of a ring-wall, enclosing an area about 125 metres in diameter, that has no less than 9 entrances. Inside is a regularly planned system of 88 rectangular houses, an outer ring of 50 being built against the surrounding wall, and an inner group being arranged in 'quarters' that are separated by streets, while in the heart of the town is a central circular structure of unknown significance. This is a very fine book indeed, and a most useful one. It certainly presents archaeologists in this country with a great deal of material that is, I think, new to most of us.

T. D. KENDRICK.

DAS BOOTGRÄBERFELD VON TUNA IN ALSIKE, UPPLAND. By T. J. ARNE. Publication of *Kungl. Vitterhets Historie och Antikvitets Akademien*, Stockholm, 1934. pp. 81 with 16 text figures and 33 plates. 15 Kr.

Tuna is the site of one of the three famous boat-grave cemeteries in the Uppsala neighbourhood of Sweden. It has been known for over 40 years and has been excavated on three occasions. This is the definitive publication of the cemetery, and as it is the work of Dr Arne and is sponsored by the Academy it is almost unnecessary to say that it is just as good as it could possibly be. In fact, it is a worthy companion to the splendid Vendel volume by Stolpe and Arne, and that is the highest praise that any excavation-account of this sort can earn. All but one of the graves belong to the Viking Period proper (800-1050). The exception is grave XIV, which is not likely to be later than A.D. 600 and is therefore the oldest grave in all three cemeteries. It was not, however, a boat-burial, and Dr Arne is of the opinion that the normal burial-custom, inhumation accompanied by sacrificed animals in a buried boat, was not known in Sweden before the middle of the 7th century. The grave-furniture from this cemetery is rich enough to be exceedingly interesting, though there are no pieces that attain to the magnificence of some of the Vendel finds. The illustrations are admirable and even include x-ray photographs of heavily rusted iron objects, while the grave-plans are, as before, complete down to the last rivet. It is interesting to note that this publication is the last in which we shall have those brilliant *engravings* of the finds that have for so long delighted us; for only the earlier discoveries appear in this form. The later finds, however, are illustrated in equally brilliant photographs, so that we need only to record, and not to grumble at, this noticeable change.

T. D. KENDRICK.

THE FRAZER LECTURES 1922-1932, by divers hands. Edited by WARREN R. DAWSON. Macmillan, 1932. pp. xv and 304, with 36 figures. 15s.

This first volume of lectures given on the foundation of the Sir James Frazer lectureship contains the eleven delivered since 1922 at various British Universities. They cover a wide field of archaeology and anthropology and fully justify the choice of the electors to the lectureship as well as those who established it.

Naturally the dominant theories of the decade are to the fore. Diffusion receives due treatment from Dr Perry, its advocate, on the one hand, and Dr Maret, its severe critic, on the other. Dr Paul Rivet gives an entirely new aspect of diffusion of the greatest importance. Dr Hartland, Canon Roscoe and Dr Haddon, deal with purely

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anthropological subjects of a more specialist character, while Sir Arthur Evans discusses the nature of Minoan religion, with the aid of wholly new material.

Dr Perry's lecture on 'The Age of the Gods' summarizes his general view, already well-known, on the diffusion of all culture and civilization from the Nile Valley. In the short space of a lecture he cannot be expected to document his every generalization; but that hardly atones for the character of some of them. His premiss that there is in the world a continuous process at work, that the oldest civilizations 'have given rise in the outlying areas to daughter settlements that are usually on a lower level of culture' and that these 'daughter settlements in their turn give rise to others' is in no sense a general truth, still less capable of being a premiss. Phoenicia gave rise to Carthage, but Carthage almost from the start was on a higher level of culture than Phoenicia. Central America did not sow culture north and south in the New World. Quite the contrary. The Maya culture burgeoned in the centre of a vast area of a homogeneous character and did not spread far and wide in the American continent. Indeed there seems to have been a converse process at work, not diffusion, but a kind of 'infusion'. America, undeveloped, almost static, with a uniform mode of life, gradually sent inwards, as it were, its own life-blood to one spot where, for some unknown reason, all the requisite material conditions for civilization were present, and there, civilization of a type to which all American life had trended suddenly broke forth. Here is 'infusion', but Dr Perry sees external contacts as the origin of the Maya culture, and so far no single external contact has been found. Similarly one might say that Greek civilization was the result of 'infusion'. A hundred influences from neighbouring lands were concentrating on one area which by nature was ordained for the next outburst of civilization. In the Aegean, as in Yucatan, the concentration of homogeneous influences resulted in a new mode of life. The process might best be illustrated by the metaphor of an electric bulb being crushed by external pressure: as the pressure increases there is a rush into the vacuum—to coin a word, there is an 'implosion'. But Dr Perry believes only in explosive movements. If he tries the alternative he will find it works better!

Dr Rivet strikes a new note when he accepts the general theory of diffusion but sees not a diffusion of civilization but of race, and the race that he proposes as the alternative to Dr Perry's Egyptians is the Melanesian. He sees a vast dispersal of an ancient stock 'à une époque très reculée' which spread from southern Asia and the adjacent islands right across the Pacific to Australia and even to south America. Here is diffusion with a vengeance but it is a diffusion of peoples wholly devoid of the elements of culture, a mere racial movement. And Dr Rivet supplies evidence of some cogence, even in the short space of a lecture.

Sir Arthur Evans calls attention to the character of Minoan religion rather than to its constituent elements. He notes the high moral standards of its beliefs and its picturesque and ethical afterworld. He remarks a dogmatic and transcendental quality far removed from the Hellenic outlook and more akin to Iranian, Christian or Islamic creeds, and an adherence to decorum that to students of the Mediterranean is unexpected.

Sir Arthur Keith analyses the present position of the Aryan theory and proposes a return to original views of Max Müller. He refuses to accept the prevalent view of the European cradle of the Aryan peoples. Unfortunately his lecture as here printed is a mere synopsis, and so it is impossible to deal with his view in any detail.

The contents of this useful volume are somewhat diverse, but the chapters have at least the wide nets of anthropology and archaeology around them to hold them together. The book has not the disadvantages of a *Festschrift*.

STANLEY CASSON.

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IRAQ : Journal of the British School of Archaeology in Iraq (Gertrude Bell Memorial).
Volume I, part I, April 1934. *Oxford University Press.* 18s.

The recently founded British School of Archaeology in Iraq is rapidly developing into one of the most active institutions devoted to the study of the Near East in general and of Iraq and its border lands in particular. Its first important undertaking was the excavation of Arpachiya, near Mosul, under the very competent direction of Mr M. E. L. Mallowan. The present publication begins a series of half-yearly issues to be given 'to studies of the history, art, archaeology, religion, social life, law, geography, and natural history of Iraq, and to a lesser degree of the neighbouring countries, Persia, Armenia, Anatolia, Syria and Arabia, from the earliest times down to about A.D. 1700'. There are many periodicals devoted to the cultural study of Egypt, Palestine, and Syria, but Iraq has been hitherto neglected in this respect. Thanks to this new journal, the last-named country has now come into its own; and to judge from the first issue, IRAQ promises to set a high standard in both contents and outward appearance. The editorial board is composed of A. Rhuvon Guest, Sidney Smith, and J. V. S. Wilkinson.

A glance at the table of contents will give a good idea of the scope of the Journal. H. Frankfort contributes a brilliant discussion on 'Gods and Myths in Sargonid Seals', of fundamental importance for the methodology of such studies. Mrs E. Douglas Van Buren has a penetrating study on 'The God Ningizzida'. R. Campbell Thompson gives a lucid account of 'The Buildings of Quyunjiq', and W. Andrae and J. Jordan make an important addition to the available surveys of 'Abu Habba—Sippar'. C. J. Gadd has a fascinating article on the Game of Fifty-eight Holes, entitled 'An Egyptian Game in Assyria'. The ceramic side is represented by D. B. Harden, who represents 'A typological examination of Sumerian Pottery-Fabrics from Jamdat Nasr and Kish'. The Parthian period is ably championed by Giuseppe Furlani, who describes the 'Sarcophagi Partici di Kakzu', and Islamic architecture has its advocate in K. A. C. Creswell, who discusses 'The Great Mosque of Al-Mansūr at Baghdād'. The introductory statement is a very happy citation from the writings of the late Gertrude Lowthian Bell, dealing with 'Art and Archaeology'. That great pioneer of Iraqi studies could not have wished for a better memorial than a journal such as this. I wish to welcome this new publication particularly in the name of the American School of Oriental Research in Baghdad, which I have the honour to direct.

May I raise in conclusion one mild objection? I notice that IRAQ has decided to follow the spellings adopted by the Iraq Department of Antiquities where topographical terms are concerned. Thus we have *tall*, *jamdat* Nasr, and the like. Was this absolutely necessary? These writings seem to be due to a desire to give a faithful transliteration of Arabic words. Instead they succeed in conveying a wrong impression. Neither *tall* nor *jamdat* have in their native forms anything suggestive of the *a*-sound, and, what is more, it is doubtful whether they ever had. *Tell*, etc., would be entirely adequate from a phonetic standpoint.

E. A. SPEISER.

WALTHAMSTOW ARCHAEOLOGY (pre-Norman). By ANNIE R. HATLEY.
Walthamstow Antiquarian Society, 1933. pp. 30, with 5 plates and 19 text-figures.
Price not stated.

This is the 27th of the very excellent series of monographs published by the Walthamstow Antiquarian Society. The author, in her preface, states that its purpose is to make information available to the general public on the subject of local archaeology. This

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it does in an excellent manner, with the aid of appropriate illustrations. The latter however, especially some of the text-figures, could be much improved. Those depicting the manner of hafting stone and bronze implements are very unconvincing. The brooch (fig. 15), would be better described as early second than as 'early first' century. As a popular account the paper certainly achieves its object and is another addition to the series of local archaeologies which is fortunately becoming quite considerable. Perhaps the most valuable result obtained is the collection of the scattered records of the numerous pre-Norman remains, which are listed in an appendix in a very thorough manner.

One must exclaim at the format. The page measures no less than $9\frac{3}{4}$ by $12\frac{3}{4}$ ins., while the letterpress occupies a space only $4\frac{3}{4}$ by $7\frac{1}{4}$ ins.—that is only 27 per cent. of the space! A large page and good margin are luxuries, but this seems excessive.

MARK REGINALD HULL.

ANCIENT MONUMENTS AND HISTORIC BUILDINGS: official guides.

H.M. Office of Works. *H.M. Stationery Office, Adastral House, Kingsway.*
Sixpence each (postage extra).

This admirably conceived series of guides to buildings under the care of H.M. Office of Works should meet with a quick response from the travelling public, who are more than ever ready to be interested in descriptive matter if written as lucidly and concisely as are these guides. Among those published this year are Harlech Castle, Helmsley Castle, Kensington Palace, Old Sarum, Portchester Castle, Richmond Castle, the Bishop's Palace at St. Davids, St. Mawes and Pendennis Castles.

Among the writers are Sir Charles Peers, lately Chief Inspector of Ancient Monuments, Mr J. P. Bushe-Fox, his successor, Mr W. J. Hemp of the Welsh Commission, and others who have intimate knowledge of the buildings they describe. A note on the history of each is followed by an architectural description accompanied by a plan and one or two plates. In some cases, such as those of Portchester and Harlech castles, the plan alone is worth the modest sixpence asked for each guide. Those who are planning tours to include the monuments under the care of the Office would do well to provide themselves with guides beforehand (to be obtained direct from the Stationery Office or from any bookseller) and this prompts us to suggest that information as to the times when access to the buildings can be obtained would be useful.

R.A.

ANCIENT ARCHITECTURE: a commentary in verse. By CHESTER H. JONES.

B. T. Batsford, 15 North Audley Street, W.1, 1933. pp. xvi, 208, with 149 illustrations. 15s.

This book is in some sort a memorial to the young and brilliant author whose early death has deprived modern architecture of one of its most promising students. The foreword by Sir Edwin Lutyens says all that need be said on the subject matter of the book, which is by way of being a summary of ancient and classical architecture, couched in the form of verse. It shows considerable powers of observation and just criticism, and in places is enlivened by a pretty wit. It would seem more appropriate to the subject if this review too were set forth in at least blank verse. The most attractive features of the book are the often admirable black and white sketches which appropriately set off the playful fancy of the text. It is a pleasant work to handle and may well serve as an introduction to the study of architecture to those who are repelled by the jargon of more solid treatises.

A. W. CLAPHAM.

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THE SKELETON OF BRITISH NEOLITHIC MAN, including a comparison with that of other prehistoric periods and more modern times. By JOHN CAMERON, M.D., D.SC. *Williams and Norgate*, 1934. pp. 272, with 51 plates and figures and 96 tables. 15s.

The association of the medical profession with prehistoric archaeology has, in this country, been both notable and of long standing ; commencing as it does with Sir Thomas Browne and continuing through Stukeley and Thurnam to those eminent archaeologists of the present day who combine a lively interest and skill in the study and restoration, not only of the lives of their remote ancestors, but of the bodies of their contemporaries. But the majority of archaeologists, working within the restricted bounds enforced by the high degree of specialization in modern scientific research, have to study man by his works alone—the disjecta membra of his daily life as typified by potsherds or flint implements, habitation-sites or graves—and leave to the professed anatomist the interpretation of the skeletal remains which they have been able to place in their appropriate cultural framework. It is to the anatomist that we turn for the completion of the picture, as a painter's apprentice, having laboriously depicted the satins and velvets, the jewels and the head-dress of the royal sitter, might have asked his master to paint in the features. To all archaeologists a book with such a title as Dr Cameron's holds out a promise of new light on many obscure points, and to those of us who are wandering in that labyrinth of conflicting and involved evidence, the British Neolithic period, there comes the hope that, Ariadne-like, Dr Cameron may be presenting us with a clue that may eventually lead us in the right way. But it is unfortunately a vain hope. 'The hungry sheep look up, and are not fed'.

A book dealing with the skeletal remains of prehistoric man may be judged from two standpoints—that of the anatomist, and that of the archaeologist. The present reviewer is not competent to criticize the technical side of the anatomical evidence, and consequently the review is written primarily from the archaeological viewpoint. It is greatly to be regretted that, from this viewpoint, the book fails utterly. The following passage, written in connexion with the peculiar development of humeri, attributed by Dr Cameron to the muscular activity of slinging, gives the incredibly amateurish tone of the whole work.

'There can be no doubt that the sling was freely used in Ancient Britain as a weapon of offence, though the author can find no reference to it in history books. He has, however, recollections from his early youth of illustrations of ancient battle scenes, in which slingers were represented, both in the attack and in the defence. Shakespeare certainly recognized the value of this ancient weapon, for he makes Hamlet in his famous soliloquy ask—

'Whether 'tis nobler in the mind to suffer

The *slings* and arrows of outrageous fortune'. (p. 206).

After this, we are in some measure prepared for such passages as that on page 217, where the author describes, with much circumstance, how he 'by a lucky chance discovered the etymology of the word Balearic'—a discovery which could be made by reference to any Latin dictionary, while our old friend Lemprière gives the whole story, complete with the reference to Strabo. And Mr Rudyard Kipling would probably be as surprised as was the reviewer to find himself twice quoted (p. 214, p. 222) as an archaeological authority in a book which purports to be a technical contribution to scientific research.

In the final chapters, Dr Cameron's archaeological ineptitude becomes still more apparent. In a manner which one cannot but envy, he reduces British prehistory to the

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stark simplicity of three simple and straightforward invasions—Neolithic, Bronze and Iron—and confidently identifies the Silures of Tacitus with the Neolithic aboriginals. The multiple strains in the British Neolithic; the dual, or possibly even triple nature of the Beaker invasions; and the complicated intermingling of immigrations throughout the Late Bronze Age and the Iron Ages, A, B, and C, are to him unknown. His archaeology appears, in fact, to be a quite remarkable anachronistic survival from half a century ago. Such an archaeological equipment does not prepossess one in favour of the more anatomical side of the work. It is unfortunate, for instance, that his basis should be the Coldrum series, already described by Sir Arthur Keith. These bones come from a not over well recorded excavation in a megalithic Long Barrow of unusual type, belonging to a small group geographically isolated from the main areas of such monuments in England. It is clear that inferences drawn from such material cannot, with fairness, be considered typical for Britain as a whole. Following this we have lengthy descriptions of the Trent, Tilbury and Bournemouth skulls, all undated by archaeological associations. Obviously, unless the basic types are closely dated to one or other of the Neolithic cultures by associated finds, subsequent generalizations become valueless. It is true Dr Cameron has utilized the work of Schuster and of Morant, but apparently without the realization that Schuster's paper in *Biometrika*, vol. IV (1905), is archaeologically uncritical, comprising as it does secondary as well as primary interments from Long Barrows. We look in vain for any reference to the pioneer papers of Thurnam and Rolleston, which, while they may be anatomically out of date, are still eminently sound archaeologically. Nor do the skulls from Wor Barrow, published in such exceptional detail by Pitt-Rivers, find a mention; instead we have such obvious padding as the dissertation on the folk-lore of the Os Sacrum (p. 233).

Under the heading 'Injury to Bone' (p. 234), we naturally expect fresh light on the vexed question of the cleaving or smashing before death of certain skulls from Long Barrows, on which the views of Thurnam and Rolleston were so sharply divided, but no mention of the problem is made; nor in discussing diseases as shown on bones (p. 235) is any mention made of the well marked case of rickets, shown by the characteristic 'Parrot's nodes' on an Early Bronze Age skull from Gellygaer, Glamorgan (*Ant. Journ.* III, p. 21) or of the less certain Bronze Age cases claimed by Rolleston from Rudstone, Yorks, and Ryehope cave, Durham (*British Barrows*, p. 700).

In the chapter to which the student of the Neolithic period would perhaps turn first—that comparing the British Neolithic skulls with these from the Mediterranean area—we see that the author is quite unfitted for the task of correlating cultures differing widely in space and characteristics. To him, Neolithic is Neolithic all the world over, and he makes no mention of the archaeological evidence which points to one of the main streams of our British Neolithic culture as coming from North France and the Rhineland, nor does he even mention Morant's exceedingly important, though admittedly tentative, conclusions based on biometric methods:—'The British Neolithic population is almost invariably said to be of "Mediterranean" type, but judging by these methods, that is now entirely belied as, of all the D type series, it is one furthest removed from the Mediterranean peoples, while it stands close to the neighbouring Anglo-Saxon and Reihengräber types' (*Biometrika*, vol. XXB, p. 352).

In conclusion, we can only feel that this is, to say the least, an unfortunate production. It in no way advances our knowledge of a particularly involved problem, and in fact serves to complicate the issue by drawing a red herring across the trail of serious research.

M.I.A.R.

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PRE-FEUDAL ENGLAND : THE JUTES. By J. E. A. JOLLIFFE. Oxford Historical Series. Oxford University Press, 1933. pp. viii, 122. 7s 6d.

The peculiarities of the Kentish social system have attracted the attention of a long series of scholars, but no one has hitherto attempted to trace the customs of the locality to their ultimate source and to reconstruct the society of the primitive kingdom before it had been influenced by Saxon usage and feudal law. Maitland, while allowing for the antiquity of some of the customs of Kent, concludes that 'probably we shall do well in looking for the explanation of what has to be explained to the time which lies on this side of the Conquest'. Mr Jolliffe's investigations however have led him to regard the medieval customs as in a large measure the survival of the social usages of the Jutish kingdom of Hengist. He depicts an attractive phase of social development; a nation of free men living in hamlets, cultivating compact tenements, *sulungs* or *juga*, and paying rent or *gafol*, one of the incidents of medieval gavelkind, to their king. Hamlets are grouped into *regiones*, lathes, in the earliest times twelve or thirteen in number, each assessed at 80 *sulungs* and each having as its administrative centre a royal village, *villa regis*, under the charge of the king's reeve. The break-up of the lathe, originally 'not only the unit of royal demesne and of common right in the Weald but also the primary unit of the folk and the king's administration' began at an early date with the extensive grants made to churches by the Kentish kings, but manorialization was never more than partially complete and the court of the lathe in medieval times combines to some extent the functions of a local court and a manorial court, enforcing the performance of services due from gavelkinders because these services, payable in feudal times to individual lords, were in origin public burdens rendered only to the king.

Mr Jolliffe has presented to his readers in a modest form—perhaps too modest since there is no index and the references are reduced to a minimum—a highly important piece of work which no student of early English society can afford to ignore. His reconstruction of the phases through which Kentish society passed is ingenious and coherent but there are times when he seems to experience difficulty in finding evidence to connect the customs of medieval times with the remote past, and it is doubtful whether the charters which he cites will always support the theories raised upon them. There is reason to believe too that the social organization of other parts of England resembled that of Kent more closely than Mr Jolliffe will allow—many ceorls of Wessex no less than those of Kent must have paid tribute to the king alone before royal grants to churches and to *gesiths* became numerous. Throughout, the author contrasts Kent with 'the Midlands', using the term *Midland* not, like Professor Gray, with reference to the open-field system of husbandry alone, but as covering the entire social organization of this wide region, a usage which ignores the marked peculiarities of the northern Midlands. In a not wholly convincing epilogue Kent is represented as the cradle of English liberty, but Mr Jolliffe never adequately explains the fact that 'there is little in Domesday Book that marks off Kent from the surrounding counties, little indeed to make us think that at the date of the survey it was a particularly free county, that it was as free as the shires of the Danelaw'.

In a later section the author compared, so far as is possible, the social systems of the primitive English kingdoms and those of the Germanic peoples on the Continent, seeking thereby to explain the origin of the customs of the earliest settlers in Kent. His illuminating discussion leads to the conclusion that the Saxons and Jutes were members of two distinct racial groups, and the affinities of the latter with the Franks, already established by archaeological evidence, are here emphasized. Whereas however archaeological evidence would restrict the primitive kingdom to the region lying east of the

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Medway, Mr Jolliffe, on the strength of certain sporadic resemblances in social organization, postulates a Jutish kingdom comprising not only the whole of Kent but parts of Sussex, Surrey and Hampshire as well. The extent to which the nature of the country may have determined local custom is however not given due consideration and the author is perhaps too much inclined to regard agrarian economy as the outcome of racial influences alone. It is scarcely less entertaining to read than to propound revolutionary views regarding the English settlement; but we are rapidly approaching a phase of Anglo-Saxon studies in which the paucity of material will present fewer problems to the general historian than the multiplicity of theories evolved by scholars who are perhaps too ready to apply the term discredited to such literary evidence as conflicts with their own views.

R. R. DARLINGTON.

THE ENGLISH ANTIQUARIES of the Sixteenth, Seventeenth, and Eighteenth Centuries. By H. B. WALTERS. *Published at Primrose Hill, London by Edward Walters, 36 Oppidans Road.* 1934. pp. VIII, 80, with six portraits (frontispiece and five in text). 10s 6d.

Mr Walters divides his antiquaries into four periods—Elizabethan, 17th century, 18th century, and county historians—and those he has chosen are familiar to every one with a knowledge of the bibliography of the topography of England. The volume is an expansion of a paper read to the Royal Society of Literature, and while it does not profess to give an exhaustive account of the lives and works of those dealt with a useful list of sources for additional information is added.

Mr Walters states that he has endeavoured to do for a class of scholars hitherto neglected what others have done for more celebrated persons. Indeed if his first chapter is taken as an example it is surprising how little attention has been given to the lives of such 'fathers' of English topography as Leland, Stow, and Camden. Leland's Itinerary is invariably quoted in papers or books dealing with local history; Stow's Survey ranks as a first authority on London; Camden is another quarry to which many writers have resorted.

With the 17th century we come to those who confined their researches to particular districts, and the names of Dugdale, Habington, John Aubrey, Antony Wood, and Robert Plot are alone sufficient to make the century notable for its topographical output, though there were other workers, such as John Smyth of Nibley, who, if they did not publish, prepared material from which a later generation has reaped the harvest. For the next century Mr Walters gives us Thomas Hearne, whose diaries are so full of information concerning Oxford and the University; Browne Willis for his ecclesiastical history; William Cole, close friend of Willis, who stands for Cambridge as Wood does for Oxford; and William Stukeley, who receives longer notice than most 'as an outstanding personality'. Mr Walters mentions as an additional claim for his own interest in Stukeley that he is a great-great-grandson, but no one can contest that as the foremost antiquary of his century the ten pages given are none too much. Stukeley was an enthusiast, and if he did make slips he may be forgiven. In ANTIQUITY for September last (pp. 328-9) Mr Crawford has given an instance of the accuracy of Stukeley's observation and the value of his drawings as records of antiquities long since vanished.

On reaching the 'county historians' Mr Walters cannot have found selection easy for many names must have occurred to him. This last chapter might quite well have come under the heading of the 18th century for the main work of the topographers

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chosen was done in that time. Bridges' *Northants*, Hutchins' *Dorset*, Morant's *Essex*, Manning and Bray's *Surrey*, Hasted's *Kent*, Gough's *Camden*, the Lysons, Nash, and Prattinton are not a bad company and to them might be added others such as John Nichols, Sir Robert Atkyns, Bigland, Fosbroke and, above all, Colt Hoare.

In the notice of Samuel Lysons a slight correction should be made. There were not three volumes of his *Views and Antiquities* of Gloucestershire. He published eleven parts of *Etchings of Views and Antiquities* with a title-page dated 1791, and in 1803 issued a larger collection of plates in which many of the original ones were redrawn and others of new subjects added. Copies with a title-page dated 1804 are also found, but all the plates correspond to the volume of 1803, published as *A Collection of Gloucestershire Antiquities*.

The apparatus now available for historians has opened up sources unknown to earlier workers, and the rich results are shown in such works as Hodgkin's *Northumberland* and the volumes of the V.C.H., but we can have nothing but admiration for the older Antiquaries whose folios stand in stately array on library shelves.

The book is issued in an attractive form. It was printed by hand on Kelmscott handmade paper and the six woodcuts are a pleasing feature.

ROLAND AUSTIN.

THE ROYAL COMMISSION ON ANCIENT AND HISTORICAL MONUMENTS AND CONSTRUCTIONS OF SCOTLAND: Eleventh report with inventory of monuments and constructions in the Counties of Fife, Kinross, and Clackmannan. *Edinburgh: H. M. Stationery Office, 1933. pp. Lxi, 352 with 511 illustrations and plans, and map of the shires. 37s 6d.*

The latest inventory for Scotland follows the lines of its predecessors in general arrangement and like its immediate forerunner (Mid and West Lothian) includes more than one county. However the district is geographically the same and consists of the peninsula between the Firths of Forth and Tay, extending up the former to near Stirling and along the banks of the latter to within a few miles of Perth.

Though somewhat insulated, the 'Kingdom of Fife' was nevertheless an important highroad between Edinburgh and the North for the Highlands beyond Perth and the more prosperous east coast, including Dundee and Aberdeen. The harbours along its southern shore in the 17th and 18th centuries carried on a considerable trade with the low countries; St. Andrews was the seat of the Archbishop and Metropolitan of Scotland. The king also had two palaces within the district, at Dunfermline and Falkland. Therefore it is not surprising to find a considerable wealth of monuments of almost all ages.

It is true there is no definite trace of Neolithic culture nor did the Roman occupation, in spite of many theories about a hundred years ago, leave any mark beyond the discovery of one or two hoards of coins. However there are a number of cairns, standing stones and several forts noted. Of the latter four have been admirably illustrated by air-photographs.

Though St. Andrews did not become an archbishopric till 1472, it had been considered as head of the Scottish Church since the beginning of the 10th century and the cathedral, as befitted, was the largest church in Scotland. It is now an utter ruin but its surrounding monuments, including St. Rule's church, the priory and the great precinct wall with its gates dating from 1520, form an exceedingly interesting group. In St. Andrews there are also the college chapels of St. Salvator and St. Leonard, the remains of the Blackfriars, the 15th century tower of the parish church and the archbishop's castle on

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the cliff above the sea. Among the other ecclesiastical monuments are the abbeys of Dunfermline, Inchcolm and Culross. The first named is notable for its magnificent Norman nave, and Inchcolm for the most perfectly preserved cloister and domestic buildings in Scotland. The period after the Reformation also produced some curious rather than beautiful examples in the square church at Burntisland built in 1592 as an attempt to produce a Presbyterian plan, and the misunderstood Gothic of Dairsie, Fordel and Balcarres a few years later resulting from the re-establishment of Episcopacy.

Parish churches are fairly numerous but in many cases altered out of all recognition. Leuchars is a fine and elaborate example of Norman, and Aberdour a simple version of the same. St. Monans is a good specimen of the late 14th century with a definite Scottish character.

Domestic work is represented from the early mote-castles through the transitional periods of courtyard and tower-plans to that most interesting of all periods in Scotland around the beginning of the 17th century when the modern house was evolving out of the castle, as typified by Earls Hall and Kellie. The superb houses (17th-18th centuries) of Melville and Kinross are noted (the former without even a plan) and it is a matter for regret that the powers that be stop the inventory at 1707, at which date Scotland had by no means ceased to build with national character. Fife notably contains more dovecots than any other county and no fewer than 93 are recorded, which seems out of all proportion to the 22 and 25 respectively of the Mid and West Lothian and East Lothian inventories. This fact had its place in the saying descriptive of the possessions of a Fife laird 'a puckle land, a lump o' debt, a doocot and a law plea'.

As far as the study of Scots architecture is concerned there can be no doubt that the inventory is quite one of the most valuable and comprehensive yet produced. By reasonable accounts of buildings as they are, and not for what may (or may not) have happened within them, it fills a noticeable gap in the vast though painfully sentimental literature which appears every year on Scotland.

BYZANTINE ARCHITECTURE AND DECORATION. *By J. ARNOTT HAMILTON.*

B. T. Batsford, 1933. pp. VIII, 172, with 71 plates and 47 figures. 18s.

This survey of Byzantine architecture forms one of the publisher's Historical Architecture Library and is based on a thesis of the author for which the University of Edinburgh granted the PH.D in 1925. It would be unreasonable to expect in a work of this length more than an outline of so vast a subject as Byzantine art and decoration, nor need we expect any particularly new presentation of the subject in a volume written as a general handbook. We admit however to some slight disappointment that here, as in many other architectural works, the bulk of the volume is occupied by descriptions of individual buildings rather than an attempt to crystallize the salient features of an age or district. This seems to be particularly necessary in Asia Minor where the general evolution of architectural forms is unusually complicated.

With these reservations Dr Hamilton's volume provides a vast mass of information in a convenient and readable form and is illustrated by an admirable series of photographs and a sufficiency of plans.

A. W. CLAPHAM.

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CORRIGENDA, VOLUME VIII

page 184, plates I-IV. The rock-carvings illustrated should have been described as
in TASMANIA

- „ 204, line 14, *for Cleeve read Sleeve*
- „ 254, see NOTE at foot of page
- „ 319, line 28, *for henchforth read henceforth*
- „ 334, „ 30, „ *untirely read entirely*
- „ 338, „ 19, „ *Burnswork read Burnswark*

14 ✓
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